

DIRECT TESTIMONY

of

CHERI L. HARDEN

Rates Department

Financial Analysis Division

Illinois Commerce Commission

Illinois-American Water Company

Docket No. 02-0690

February 5, 2003

1    **Q.    Would you please state your name and business address?**

2    A.    Cheri L. Harden, 527 East Capitol Avenue, Springfield, Illinois 62701.

3

4    **Q.    By whom are you employed and in what capacity?**

5    A.    I am employed by the Illinois Commerce Commission ("Commission") as a Rate  
6    Analyst in the Rates Department in the Financial Analysis Division.

7

8    **Q.    How long have you been employed by the Illinois Commerce Commission?**

9    A.    I have been employed by the Commission since September 2000. My  
10    responsibilities include rate design and cost of service analyses for electric, water  
11    and gas utilities and the preparation of testimony on rates and rate-related  
12    matters.

13

14    **Q.    Will you please briefly state your qualifications?**

15    A.    I graduated from the University of Maryland in 1993, with a Bachelor of Science  
16    degree in Management Studies.

17

18    Previously, I worked for the Wyoming Public Service Commission for almost  
19    seven years. The last two positions I held were as the Consumer Services  
20    Coordinator and as a Rate Analyst. I analyzed telecommunications, electric  
21    (investor-owned and cooperatives), gas, water and pipeline company filings. I  
22    reviewed a variety of cases including mergers, tariff revisions, fuel adjustments,  
23    certificate applications, complaints, contract/interconnection agreements and rate

cases. I also worked on special projects such as the Universal Service Fund, Annual Reports and Year 2000 Preparedness.

**Q. Have you formerly testified before regulatory bodies?**

A. Yes, I have testified on several occasions before the Illinois Commerce Commission and the Wyoming Public Service Commission.

**Q. What is your assignment in this case?**

A. I was requested by the Manager of the Water Department to examine three rate areas of Illinois-American Water Company ("IAWC" or "Company"), to evaluate the rate design and develop a cost of service study ("COS study") from the Company's information. The three rate areas that I will be testifying in regard to are Champaign, Lincoln, and Sterling.

**Q. Please explain how your testimony is organized.**

A. My testimony begins with the Company's proposed test year for the Champaign, Lincoln and Sterling rate areas. I then present the results of my COS study for each rate area. Next, I discuss rate design. Finally, I discuss miscellaneous tariff issues.

44    **TEST YEAR**

45    **Q.    What test year is the Company proposing to use for cost of service**  
46        **purposes?**

47    A.    The Company is proposing to use a future test year ending December 31, 2003.  
48        (Ruckman Direct Testimony, Exhibit 1.0, p. 3.)

49

50    **COST OF SERVICE STUDIES**

51    **Q.    Briefly describe the importance of a COS study as the basis for**  
52        **determining rates for utility service.**

53    A.    In general, a COS study is performed to assist in the development and design of  
54        cost based rates. A more detailed explanation of embedded cost studies and  
55        how costs are generally allocated is outlined in the attached Appendix A to this  
56        exhibit.

57

58    **Q.    Did the Company present a COS study for each rate area in its filing?**

59    A.    No, it did not. The Company is proposing rates that are based upon across-the-  
60        board revisions to all rates for all rate areas in accordance with revenue  
61        requirements applicable to each rate area. (Stafford Direct Testimony, Exhibit  
62        4.0, p. 8.)

63

**Q. What methodology did you use in preparing your COS study for the Champaign, Lincoln and Sterling rate areas?**

A. Each COS study uses the Base-Extra Capacity method of cost allocation to distribute costs to customer classes. The Base-Extra Capacity method is the same methodology employed and accepted by the Commission the last time rates were set for IAWC (Docket No. 00-0340 for Champaign and Sterling rate areas and Docket No. 94-0183 for the Lincoln rate areas). A further discussion on methodology is provided in the attached Appendix A to this exhibit.

**Q. Please provide a brief explanation of your COS study, identified as ICC Staff Exhibit 9.0, Schedule 9.1-C, Schedule 9.1-L and Schedule 9.1-S.**

A. I prepared a COS study for each rate area, which has been identified as ICC Staff Exhibit 9.0, Schedule 9.1-C, Schedule 9.1-L and Schedule 9.1-S. The suffix letter is added to the schedule number to identify the individual rate areas as follows:

C - Champaign

L - Lincoln

S – Sterling

My COS study employs information from the Company in response to Commission Staff (“Staff”) data requests and incorporates other techniques similar to those used previously by Staff in other dockets.

I also incorporated the Accounting Staff's proposed changes into my COS study and recalculated the COS study for the Champaign, Lincoln and Sterling rate areas to reflect these changes. I utilize the revenue requirement generated from the rates as filed by the Company since this revenue requirement was lower than the Accounting Staff's proposed revenue requirement in the Lincoln and Sterling rate areas. For the Champaign rate area I utilized the revenue requirement that was generated from the Accounting Staff's proposed changes.

**Q. Please continue with your explanation of your COS study.**

A. The calculation and summary of total revenues at the Company's present and proposed rates, as well as my recommended rates for each primary customer class are listed on Pages 1 and 2 of each COS study. By examining those pages, it is possible to compare my calculated cost of service and the revenues recovered under my recommended rates, for each primary customer class.

The appropriate cost of service figures, excluding Fire Protection, for each of the primary customers classes appear on page 2 at the line "Cost of Service".

The Demand Factors for Max Day and Max Hour, for the primary customer classes and Fire Protection, as well as the million gallons per day ("MGD") pumpage and consumption numbers are listed on page 3 of each COS study. The Demand Factors allocate cost of service to the primary customer classes and to Fire Protection. The allocation of these amounts is set forth on pages 11

and 12 of each COS study. The water usage and pumpage amounts in MGD are used to allocate plant in service and operation and maintenance (“O&M”) expenses to the plants Base, Max Day and Max Hour functions. Page 4 contains a numerical listing of cost allocation codes for the COS study.

Allocation of Plant in Service to the Base Cost, Max Day, Max Hour, Billing, Meters, Service Lines and Fire Protection categories is on pages 5 and 6 of each COS study. Page 6 also displays the percentage allocations for the Plant In Service categories. These percentages are used to allocate Utility Operating Income, Other Taxes, and Income Taxes to the various plant functions on page 9 of the COS study.

The allocation of Total Revenue Requirement, i.e., total Operations & Maintenance Depreciation, Other Taxes, Income Taxes and Utility Operating Income to the Base Cost, Extra Capacity, Customer Costs, and Fire Protection functions is on pages 7, 8, 9, and 10 of each COS study. The total revenue requirement is located on page 9 on the line “DIRECT CUSTOMER REVENUES”. The Total Revenues Allocated To Small Mains is on page 10 of each COS study.

The cost of service allocation percentages for the primary customer classes and fire protection are on page 11 of each COS study. The allocation percentages

are derived from annual consumption, demand factors, the number of monthly bills and the number of monthly equivalent meters and services.

The percent allocation of costs to the primary customer classes and fire protection, the total cost of service, and the cost of service according to each customer class are on page 12. The calculation of Public Fire Protection and Private Fire Protection cost of service is on page 13 of each COS study. Public Fire Protection Rates are on page 14 of each COS study.

The number of equivalent meters and service lines and their capacity ratios are on page 15. Distribution of customer costs by equivalent meter and service ratios recognizes that meter and service costs vary, depending on considerations such as size of service pipe, materials used, locations of meters, and other local characteristics for various sized meters as compared to 5/8" meters and services. The number of equivalent meters and services (which is based on meter ratios) assists in allocating costs assigned for recovery in the customer charges. This is necessary to adjust the units of service for each customer class as indexed against the smallest meter size. Therefore, customers are allocated a charge that reflects the costs associated with their particular meter size. Equivalent Meters and Services ratios are taken from the AWWA Water Meters-Selection, Installation, Testing, and Maintenance Manual (M6), 1972, pages 32-33.



Depreciation Expense Allocation is on page 16 of each COS study. A brief description of COS study allocation codes appears on page 17 of each COS study.

**Q. What demand factors and million gallons a day pumpage numbers are you proposing to use for the Champaign, Lincoln and Sterling rate areas?**

A. The Company did not provide updated numbers for these areas so I have used the same class demand factors that were approved by the Commission in the previous dockets involving these rate areas. (Docket No. 00-0340 for Champaign and Sterling rate areas and Docket No. 94-0183 for the Lincoln rate area.)

The MGD numbers that I have used are from the peak year for the period, 1997-2001. My selection of the peak year is appropriate because it gives an indication as to how the system is used for periods of peak demand.

#### **RATE DESIGN**

**Q. Please describe the Company's present rate structure and the changes proposed for the Champaign, Lincoln and Sterling rate areas.**

A. There are separate rate structures for each of rate areas based on the revenue requirement for each rate area. The rates consist of customer charges, declining block usage rates and public and private fire protection charges. The Company proposes to maintain its general rate structure for the Champaign, Lincoln and

176 Sterling rate area. The Company has proposed to increase the monthly  
177 customer charges, water usage charges, and public and private fire protection  
178 charges by 20.0% for the Champaign rate area, 13.7% for the Lincoln rate area  
179 and 51.2% for the Sterling rate area.

180  
181 **Q. Do you agree with the Company's rate proposal?**

182 A. No, I do not. The Company states that current rates for most rate areas are  
183 based on cost of service studies performed only three years ago. (Stafford Direct  
184 Testimony, Exhibit 4.0, page 8). However, I believe that cost of service studies  
185 should be performed with the most recent data, so that rates reflect current  
186 conditions. The more recent data received through data request responses from  
187 the Company is reliable and current, therefore, I have incorporated the new data  
188 provided by the Company into a Staff designed COS study.

189  
190 **Q. What are your recommendations for the proposed monthly customer**  
191 **charges, private fire protection charges, public fire protection charges, and**  
192 **water usage charges for the Champaign, Lincoln and Sterling rate areas?**

193 A. My proposed rates for customer charges and usage charges are in ICC Staff  
194 Exhibit 9.0, Schedule 9.1-C, Schedule 9.1-L and Schedule 9.1-S in the column  
195 labeled "STAFF RATES". On the same schedules, page 2, under "PVT. FIRE  
196 PROT RATES, MONTHLY", the fifth line under this heading is Staff's  
197 recommended private fire rates. The public fire protection surcharge that I

recommend is on the same schedules, page 14, under “monthly rates” for each of the customers listed.

If Staff’s recommended adjustments to the Company’s requested revenue requirement are approved in this proceeding, then I recommend that the rates that appear as described above on ICC Staff Schedule 9.1-C, Schedule 9.1-L and Schedule 9.1-S, for Champaign, Lincoln and Sterling rate areas respectively, be approved.

**Q. Are you proposing an increase in the Raw Water rate for the Champaign rate area?**

A. Yes, I am. My proposed raw water rate is derived based on Exhibit B to Schedule F attached to the Order by the Commission in Docket No. 97-0254. It is titled METHODOLOGY FOR CALCULATION OF RAW WATER RATE.

**Q. What percentage increases do you recommend for the various customer classes in Champaign, Lincoln and Sterling rate areas?**

A. My recommended increases for each customer class for these rate areas are found on page 2 of my COS study, on the line titled “Percent Increase”, on ICC Staff Exhibit 9.0, Schedule 9.1-C, Schedule 9.1-L and Schedule 9.1-S.

219 **Q. Did you prepare a schedule showing the bill comparison on a residential**  
220 **customer from both the Company's proposed rates and Staff's proposed**  
221 **rates?**

222 A. Yes, I did. ICC Staff Exhibit 9.0, Schedule 9.2-C, Schedule 9.2-L and Schedule  
223 9.2-S show several comparisons involving Staff's proposed rates for the  
224 Champaign, Lincoln and Sterling rate areas. Specifically, these schedules depict  
225 the percentage change (increase or decrease) between the Company's present  
226 and proposed monthly revenues and between Staff's proposed monthly  
227 revenues.

228  
229 **Q. If the Commission adopts a revenue requirement that is different from**  
230 **Staff's proposed revenue requirement, what do you propose?**

231 A. If a change in revenue requirement is 5% or less, I recommend that the usage  
232 rates be changed by a uniform percentage to generate the approved revenue. If  
233 the change is larger than 5%, I recommend that the customer charges and usage  
234 charges be adjusted to reflect cost of service by updating the Staff's COS study.

235

236 **MISCELLANEOUS TARIFF CHARGE ISSUES**

237 **Q. What did the Company propose for standby charges?**

238 A. The Company is proposing to increase the standby charges for the Champaign,  
239 Pontiac and Sterling rate areas using the same method used for all other rates of  
240 across-the-board revisions to all rates for all rate areas in accordance with  
241 revenue requirements applicable to each rate area.

242

243 **Q. Is Staff proposing changes to the Pontiac rate area standby rate?**

244 A. Yes. Staff witness Luth testifies in regard to the Pontiac rate area standby rate in  
245 ICC Staff Exhibit 8.0. I am unable to calculate a proposed standby rate in the  
246 same manner, as there are no actual usage revenues associated with the  
247 standby rate in the Champaign and Sterling rate areas.

248

249 **Q. What is your proposal for standby rates in the Champaign and Sterling rate**  
250 **areas?**

251 A. I propose to leave the standby rate the same. In the last case for the Champaign  
252 and Sterling rate areas, Docket No. 00-0340 Company witness Stafford's  
253 testimony states that:

254 "The Company believes that no change should be made to  
255 the standby service rate design for the Eastern Division at  
256 this time, until further experience is obtained." (Stafford  
257 Direct Testimony, Exhibit 3.0, p. 14.)  
258

259 The Eastern Division referred to above was the Champaign, Pontiac and Sterling  
260 rate areas at that time. The last rate case also requested an across-the-board  
261 increase to other rates. An across-the-board increase does not reflect any  
262 experience and is an arbitrary number. The Company has not been able to  
263 gather any further experience under the standby rate as there have not been and  
264 currently are no customers utilizing the standby rate in the Champaign and  
265 Sterling rate areas. My recommendation to leave the rates the same for standby  
266 services is based on the Commission's Order in the last rate case for this utility,

267 since no further experience has been obtained in the Champaign and Sterling  
268 rate areas. The Lincoln rate area does not have a standby rate.

269

270 **Q. Do you have any other miscellaneous tariff changes to discuss?**

271 A. No, I do not. The non-sufficient funds charge, late payment charge and  
272 reconnection charge will be addressed by Staff witness Johnson's testimony in  
273 ICC Staff Exhibit 7.0.

274

275 **Q. Does this conclude your direct testimony in this proceeding?**

276 A. Yes.

277

## **APPENDIX A**

### **Narrative Description of ECOSS Methodology**

#### **SUMMARY**

In general, the objectives of an ECOSS are to functionalize a utility's revenue requirement into basic categories and allocate those costs across rate classes to determine each classes cost of service. Rates can then be designed to recover the cost to serve each customer class. In the water industry, embedded cost studies are utilized as the main guide to designing rates which are unique to each utility.

The development of water rates, in general, involves the following procedures, described in the American Water Works Association ("AWWA") Manual M1, "Water Rates," p. vii (Fourth Edition):

- Determination of the total annual revenue requirements for the period for which the rates are to be effective.
- Allocation of the total annual revenue requirements to the basic functional cost components.
- Distribution of the component costs to the various customer classes in accordance with their requirements for service.
- Design of water rates that will, recover from each class of customer, within practical limits, the cost to serve that class of customer.

The following report describes the procedures employed in performing the embedded cost of service study for the Company.

#### **ECOSS METHODOLOGY**

Staff's ECOSS uses the Base-Extra Capacity method described in detail in AWWA's *Water Rates*, Manual M1, (Fourth Edition) pages 11-16, 1991. This procedure is a generally accepted and often used method of determining the cost to serve water customers and thus provides the basis of designing rates for a water utility.

The basic breakdown of cost is the functionalization into operational components. For a water utility the three basic types of costs are 1) operation and maintenance (O&M) expense 2) depreciation expense and 3) return on capital investment. This information

is normally readily available from the utility's accounting records.

After the costs are functionalized, they are allocated to four main components 1) base costs 2) extra capacity costs 3) customer costs and 4) direct fire protection costs.

- **Base costs** are those costs that tend to vary with the total quantity of water used. These costs also include O&M expenses and capital costs associated with serving customers under average load conditions.
- **Extra capacity costs**, and their associated O&M and capital costs, are costs correlated with meeting usage in excess of average usage. These costs can be further subdivided into costs associated with maximum-day extra usage and maximum-hour extra usage.
- **Customer costs** encompass those expenditures related to serving a customer regardless of that customer's water usage or rate of usage. These contain costs associated with meters, services and other customer related costs.
- **Direct fire protection costs** are directly applicable to the fire protection function.

After costs are properly allocated between cost components, the cost of service for each meter size is determined. The fixed customer cost of service per meter has three basic components:

- **Equivalent meter costs** include those customer costs associated with meters.
- **Equivalent service costs** include those customer costs associated with services.
- **Other customer costs** are those costs attributed directly to customers, divided by the number of bills to obtain a customer charge per bill. Other customer costs are non-meter size sensitive with each meter size being allocated the same per unit charge, regardless of class (i.e. residential, commercial, industrial etc.).

Equivalent meters and services is a method of assigning costs based on the size of the meter. Distribution of customer costs by equivalent meter and service ratios recognizes that meter and service costs vary, depending on considerations such as size of service pipe, materials used, locations of meters, and other local characteristics for various sized meters as compared to 5/8" meters and services. The number of equivalent meters and services (i.e. which is based on meter ratios) assists in allocating costs



assigned for recovery in the customer charges. This is necessary to adjust the units of service for each customer class as indexed against the smallest meter size. Therefore, customers are allocated a charge that reflects the costs associated with their particular meter size. Actual cost differentials are taken from the AWWA Water Meters-Selection, Installation, Testing, and Maintenance Manual (M6), 1972 pages 32-33.

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM	PRESENT RATES	PROPOSED RATES	STAFF RATES	RESIDENTIAL BILL ANA. ADJUST.	COMMERCIAL BILL ANA. ADJUST.	INDUSTRIAL BILL ANA. ADJUST.	UNIVERSITY of IL BILL ANA. ADJUST.	RAW WATER BILL ANA. ADJUST.	STANDBY BILL ANA. ADJUST.	PUB. AUTH. BILL ANA. ADJUST.	OTHER WATER UTILITIES BILL ANA. ADJUST.	TOTAL
CUS CHARGES, MONTHLY												
5/8" disk	7.60	9.14	7.60	511,420	0	20,493	0	53	0	0	0	533,206
3/4" disk	9.73	11.70	9.73	8,358	0	2,600	0	24	0	0	0	11,252
1" disk	14.00	16.83	14.00	6,549	0	5,978	0	120	0	0	0	13,236
1 1/2" disk	24.65	29.63	24.65	1,945	0	3,842	0	120	0	0	0	6,157
2" disk	37.35	44.89	37.35	156	0	1,229	0	250	0	0	0	2,103
3" disk	77.00	92.55	77.00	12	0	208	0	84	0	0	0	368
4" disk	130.00	156.26	130.00	12	0	54	0	12	0	0	0	114
6" disk	270.00	324.54	270.00	35	0	36	0	48	0	0	24	191
8" disk	385.00	462.77	385.00	0	0	0	0	0	0	0	0	0
10" disk	617.00	741.63	617.00	0	0	0	0	12	0	0	0	12
12" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
3" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
4" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
6" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
8" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
10" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Remove Parallel Meters	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Total Bills				528,487	0	34,440	0	711	0	60	0	566,639
TOTAL CUS CHARGE REVENUES Present				4,125,506	0	438,101	0	35,611	0	20,364	0	4,679,611
Proposed				4,961,365	0	526,716	0	42,804	0	24,477	0	5,627,523
Staff				4,125,506	0	438,101	0	35,611	0	20,364	0	4,679,611
USAGE CHARGES (100 cubic feet)				10 cubic feet	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)
First Block	1.5637	1.8796	1.9413	3,558,269	0	375,693	0	8,660	0	300	0	3,967,492
Second Block	1.1476	1.3794	1.3999	438,268	0	481,954	0	22,202	0	1,200	0	989,302
Third Block	1.0240	1.2308	1.2499	115,972	0	601,675	0	146,424	0	13,500	0	988,456
Fourth Block	0.8285	0.9959	0.9988	9,020	0	138,295	0	670,050	0	105,000	0	1,475,299
Fifth Block	0.7285	0.8757	0.8999	0	0	0	0	0	0	1,755,704	0	1,755,704
Raw Water	0.4170	0.5012	0.5954	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
ADJUSTMENTS												
First Block	1.5637	1.8796	1.9413	0	0	0	0	0	0	0	0	0
Second Block	1.1476	1.3794	1.3999	0	0	0	0	0	0	0	0	0
Third Block	1.0240	1.2308	1.2499	0	0	0	0	0	0	0	0	0
Fourth Block	0.8285	0.9959	0.9988	0	0	0	0	0	0	0	0	0
Fifth Block	0.7285	0.8757	0.8999	0	0	0	0	0	0	0	0	0
Sixth Block	0.4170	0.5012	0.5954	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Total Usage				4,121,529	0	1,597,617	0	847,336	0	1,875,704	0	9,176,253

ITEM		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		U of IL		RAW WATER		STANDBY		PUB. AUTH.		OTHER WATER UTILITIES		TOTAL			
		BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.				
USAGE CHARGE REVENUES	Present	6,193,250	0	1,871,254	0	744,095	0	1,381,693	0	0	0	0	0	136,882	0	525,610	0	10,852,785			
	Proposed	7,444,391	0	2,249,229	0	894,424	0	1,660,874	0	0	0	0	0	164,530	0	631,804	0	13,045,253			
	Staff	7,675,162	0	2,294,183	0	900,154	0	1,703,968	0	0	0	0	0	167,726	0	634,782	0	13,375,974			
OTHER ADJUSTMENTS Reconciliation	Present	(33)	0	2	0	(3)	0	(3)	0	0	0	0	0	(9)	0	8	0	(38)			
	Proposed	(40)	0	2	0	(4)	0	(4)	0	0	0	0	0	(11)	0	10	0	(46)			
	Staff	(38)	0	2	0	(4)	0	(4)	0	0	0	0	0	(11)	0	10	0	(44)			
TOTAL METERED REVENUES	Present	10,318,723	0	2,309,357	0	779,703	0	1,402,054	0	0	0	0	0	183,894	0	538,626	0	15,532,358			
	Proposed	12,405,716	0	2,775,948	0	937,224	0	1,685,348	0	0	0	0	0	221,045	0	647,449	0	18,672,730			
	Staff	11,800,630	0	2,732,286	0	935,761	0	1,724,328	0	0	0	0	0	214,736	0	647,800	0	18,055,542			
PVT. FIRE PROT RATES, MONTHLY		Less than											PRIVATE								
Size Connection		3"	3"	4"	6"	8"	10"	12"	14"	HYDRANTS											
Present		4.00	4.00	6.00	10.00	18.00	30.00	46.00	65.00	15.15											
Proposed		4.81	4.81	7.21	12.02	21.64	36.06	55.29	78.13	18.21											
Per Cost of Service Study		3.00	5.00	7.00	14.00	28.00	48.00	75.00	157.00	14.95											
Staff		5.00	5.00	7.00	14.00	28.00	48.00	75.00	157.00	14.95											
Units (ANNUAL)		864	492	2,412	6,165	1,440	168	60	24	1,140											
NON-METERED REVENUES		PVT. FIRE		PUBLIC FIRE				OTHER		VARIABLE		TOTAL									
				MUNICIPAL RCHARGE				TOTAL		OPERATING		REVENUES		NON-METERED							
Present		134,094		0 1,038,230				1,038,230		185,668		41,002		1,398,994							
Proposed		161,188		0 1,247,952				1,247,952		188,875		49,293		1,647,308							
Staff		183,669		50,922 1,101,673				1,152,595		188,875		47,473		1,572,612							
TOTAL REVENUES		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		U of IL		RAW WATER		STANDBY		PUB AUTH		OTHER WATER UTILITIES		NON-METERED		TOTAL	
Present		10,318,723		2,309,357		779,703		1,402,054		0		0		183,894		538,626		1,398,994		16,931,352	
Proposed		12,405,716		2,775,948		937,224		1,685,348		0		0		221,045		647,449		1,647,308		20,320,038	
Staff		11,800,630		2,732,286		935,761		1,724,328		0		0		214,736		647,800		1,572,612		19,628,153	
PER STAFF		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		U of IL		RAW WATER		STANDBY		PUB AUTH		OTHER WATER UTILITIES		PUB. FIRE		PVT FIRE	
Cost of Service		11,787,586		2,774,481		935,435		1,724,746		0		0		215,747		616,164		1,153,479		184,214	
Percent Increase		14.4		18.3		20.0		23.0		0.0		0.0		16.8		20.3		11.0		37.0	
Percent Cost of Service		100.1		98.5		100.0		100.0		0.0		0.0		99.5		105.1		99.9		99.7	

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit 9.0  
ICC Schedule 9.1-C

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Demand Factors"

page 3 of 17

DEMAND FACTORS		
Customer Class	Max Day	Max Hour
Residential	2.25	3.00
Commercial	1.80	2.50
Industrial	1.50	2.00
U OF I	1.25	1.50
Raw Water	1.25	1.50
Standby	0.00	0.00
Public Authority	1.90	2.50
Other Water Utilities	1.50	1.50
Fire Protection	0.63	5.04
Gallons Per Minute	3,500	
Hours of Protection	3	

MGD PUMPAGE	
Average Daily Rate	21.464
Max. Daily Rate	30.873
Max. Hourly Pumpage Rate	33.200
Max. Hourly Consumption Rate	38.320

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit 9.0  
ICC Schedule 9.1-C

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

page 4 of 17

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	69.52%	30.48%					
Base-Max Hr.	3	56.01%		43.99%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	45.60%	19.99%	13.45%	0.00%	6.70%	10.55%	3.71%
Adm. and Gen.	10	35.62%	15.61%	24.28%	18.48%	1.41%	2.07%	2.51%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	56.01%	24.55%	19.43%				

Refer to last page for brief allocation code explanations

**ILLINOIS COMMERCE COMMISSION**  
**Cost of Service Study**  
**"Plant in Service Allocation"**

[illegible]

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	GENERAL PLANT	4,880,516										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	319,744	6,681	313,063	142,762	62,578	42,096	0	20,989	33,021	11,618	9
340	Office furniture	2,146,364	810,229	1,336,135	609,299	267,078	179,662	0	89,579	140,931	49,586	9
341	Transportation	1,191,681	457,228	734,453	334,923	146,809	98,757	0	49,240	77,467	27,256	9
342	Stores	26,784	9,485	17,299	7,889	3,458	2,326	0	1,160	1,825	642	9
343	Tools etc	450,560	89,790	360,770	164,517	72,114	48,511	0	24,187	38,053	13,389	9
344	Laboratory	117,394	41,600	75,794	34,563	15,150	10,192	0	5,082	7,994	2,813	9
345	Power operated	480,604	52,303	428,301	195,312	85,612	57,591	0	28,715	45,176	15,895	9
346	Communications	116,329	75,378	40,951	18,674	8,186	5,506	0	2,746	4,319	1,520	9
347	Miscellaneous	31,056	9,993	21,063	9,605	4,210	2,832	0	1,412	2,222	782	9
348	Other Tangible Plant	259,552	0	259,552	118,360	51,881	34,900	0	17,401	27,377	9,632	9
399	RECONCILIATION	1,193,596	378,879	814,717	371,524	162,852	109,550	0	54,622	85,933	30,235	9
	TOTAL PLANT IN SERVICE	90,548,950	28,064,227	62,484,723	28,942,128	12,325,327	8,291,186	0	4,133,985	6,503,785	2,288,312	
	Allocation Code 9 Calculation	Cross check =		62,484,723	45.60%	19.99%	13.45%	0.00%	6.70%	10.55%	3.71%	
				Total	Base Cost	Max Day	Max Hour					
	Small Main Plant in Service			20,608,636	11,543,418	5,060,195	4,005,024					
	Small Main CIAC			10,918,801	6,115,896	2,680,976	2,121,929					
	Total Plant CIAC			11,516,356	6,450,602	2,827,698	2,238,056					
	Allocated Total Plant less General				26,934,699	11,445,399	7,699,263					
	% Small Main to Allocated Total Plant				42.86%	44.21%	52.02%					
	Small Main with General Plant Allocated				12,403,742	5,449,225	4,312,932					
	Small Main with General Plant Allocated less CIAC				6,287,846	2,768,249	2,191,003					
	Allocated Total Plant less CIAC				22,491,526	9,497,629	6,053,130					
	% Small Main less CIAC to Allocated Total Plant less CIAC				27.96%	29.15%	36.20%					

IAWC

Docket No. 02-0690

ICC Staff Exhibit 9.0

ICC Schedule 9.1-C

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 7 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs Billing	Meter	Services	Fire Service	Alloc. Code
	SOURCE OF SUPPLY	1,976,469										
601	Salaries and Wages	806,663	0	806,663	560,821	245,842						2
610	Purchased water	0	0	0	0							1
615	Purchased Power	1,169,806	0	1,169,806	1,169,806							1
616	Fuel for Power Prod.	0	0	0	0							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	188,105										
620	Materials and Supplies	53,323	0	53,323	37,072	16,251						2
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	0	0	0	0	0						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	30,874	0	30,874	21,465	9,409						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
668	Water Res. Consv. Exp.	0	0	0	0	0						2
675	Misc. Expenses	103,908	0	103,908	72,241	31,667						2
	PUMPING EXPENSES	103,203										
601	Salaries and Wages	103,203	0	103,203	57,807	25,340	20,056					12
615	Purchased Power	0	0	0	0							1
616	Fuel for power production	0	0	0	0							1
620	Materials and Supplies	0	0	0	0	0	0					12
631	Contractual Serv.	0	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0	0					12
636	Contractual Serv. - Other	0	0	0	0	0	0					12
641	Rental of Property	0	0	0	0	0	0					12
	PUMPING EXPENSES	24,174										
642	Rental of Equipment	0	0	0	0	0	0					12
650	Transportation Expenses	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	24,174	0	24,174	13,540	5,936	4,698					12
	WATER TREATMENT EXPENSE	901,714										
601	Salaries and Wages	165,848	0	165,848	115,303	50,545						2
615	Purchased Power	0	0	0	0	0						2
616	Fuel for power production	0	0	0	0	0						2
618	Chemicals	711,266	0	711,266	711,266							1
620	Materials and Supplies	24,600	0	24,600	17,103	7,497						2



IAWC

Docket No. 02-0690

ICC Staff Exhibit 9.0

ICC Schedule 9.1-C

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 8 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	WATER TREATMENT EXPENSE	264,128										
631	Contractual Serv.	112,754	0	112,754	78,391	34,363						2
635	Contractual Serv. - Testing	89,721	0	89,721	62,377	27,344						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
675	Misc. Expenses	61,653	0	61,653	42,863	18,790						2
	TRANSMISSION/DISTRIBUTION	1,399,330										
601	Salaries and Wages	1,082,707	0	1,082,707	246,406	108,015	581,052	0	34,703	50,865	61,666	13
661	Storage Facilities	0	0	0			0					4
662	Mains	265,065	0	265,065	148,470	65,083	51,512					12
663	Meters	20,910	0	20,910					20,910			6
664	Services	30,648	0	30,648						30,648		7
615	Purchased Power	0	0	0	0							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION	459,812										
618	Chemicals	0	0	0	0							1
620	Materials and Supplies	17,676	0	17,676	4,023	1,763	9,486	0	567	830	1,007	13
672	Dist. reservoirs and standpipes	298,595	0	298,595			298,595					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	0	0	0	0							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property	0	0	0	0	0	0	0	0	0	0	13
677	Hydrants	37,156	0	37,156							37,156	8
642	Rental of Equipment	0	0	0	0	0	0	0	0	0	0	13
650	Transportation Exp.	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	106,385	0	106,385	24,211	10,613	57,093	0	3,410	4,998	6,059	13
	CUSTOMER ACCOUNTS EXPENSE	464,987										
601	Salaries and Wages	181,577	0	181,577				181,577				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	133,343	(4,188)	129,155	46,006	20,167	31,357	23,873	1,827	2,678	3,247	10
620	Materials and Supplies	150,067	0	150,067				150,067				5
	CUSTOMER ACCOUNTS EXPENSE	446,805										
631	Contractual Serv.	437,708	0	437,708				437,708				5
635	Contractual Serv. - Testing	0	0	0				0				5
636	Contractual Serv. - Other	9,097	0	9,097				9,097				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	0	0	0				0				5
650	Transportation Exp.	0	0	0				0				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	0	0	0				0				5

Act.	Utility	Staff	Net	Base	Extra Capacity		Customer Costs			Fire	Alloc.	
No.	Account	Cost	Adjust.	Cost	Cost	Max Day	Max Hour	Billing	Meter	Services	Service	Code
ADMINISTRATIVE AND GENERAL												
	4,849,189											
601	Salaries and Wages-employees	578,169	0	578,169	205,947	90,279	140,369	106,867	8,181	11,990	14,536	10
603	Salaries and Wages-officers	92,909	0	92,909	33,095	14,507	22,557	17,173	1,315	1,927	2,336	10
604	Pensions and benefits *	1,185,926	0	1,185,926	422,433	185,178	287,922	219,202	16,780	24,594	29,817	10
631-636	Outside services	815,786	0	815,786	290,587	127,382	198,059	150,787	11,543	16,918	20,511	10
615	Purchased Power	0	0	0	0	0	0	0	0	0	0	10
616	Fuel for Power Prod.	0	0	0	0	0	0	0	0	0	0	10
656-659	Insurance	498,045	0	498,045	177,406	77,768	120,917	92,057	7,047	10,329	12,522	10
641-642	Rents	224,748	0	224,748	80,056	35,094	54,565	41,542	3,180	4,661	5,651	10
650	Transportation Exp.	83,854	0	83,854	29,869	13,094	20,358	15,499	1,186	1,739	2,108	10
620	Materials and Supplies	98,582	0	98,582	35,115	15,393	23,934	18,222	1,395	2,044	2,479	10
660	Advertising	30,867	0	30,867	10,995	4,820	7,494	5,705	437	640	776	10
666-667	Regulatory Expense	22,700	0	22,700	8,086	3,545	5,511	4,196	321	471	571	10
675	Misc. Expenses	1,217,603	0	1,217,603	433,716	190,125	295,613	225,057	17,228	25,251	30,613	10
PRO FORMA ADJUSTMENTS												
Labor *	0	(86,592)	(86,592)	(30,844)	(13,521)	(21,023)	(16,005)	(1,225)	(1,796)	(2,177)		10
Fuel and Power	0	(28,532)	(28,532)	(28,532)								1
Chemicals	0	6,245	6,245	6,245								1
Waste Disposal	0	(2,754)	(2,754)	(1,915)	(839)							2
Management Fees	0	(42,737)	(42,737)	(23,938)	(10,494)	(8,305)						12
Group Insurance *	0	0	0	0	0	0	0	0	0	0	0	10
Pensions *	0	0	0	0	0	0	0	0	0	0	0	10
Regulatory Expenses	0	0	0	0	0	0	0	0	0	0	0	10
Insurance other *	0	0	0	0	0	0	0	0	0	0	0	10
Customer Accounting	0	0	0					0				5
Rents	0	(7,416)	(7,416)	(2,642)	(1,158)	(1,800)	(1,371)	(105)	(154)	(186)		10
General Office Exp	0	0	0	0	0	0	0	0	0	0	0	10
Maint-other	0	(432,882)	(432,882)	(154,195)	(67,593)	(105,096)	(80,012)	(6,125)	(8,977)	(10,884)		10
Miscellaneous	0	(34,491)	(34,491)	(12,286)	(5,386)	(8,374)	(6,375)	(488)	(715)	(867)		10
SUBTOTAL OPER. & MAIN.		11,077,916	(633,347)	10,444,569	4,908,369	1,336,821	2,086,548	1,594,864	122,085	178,942	216,939	
RECONCILIATION			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
TOTAL OPERATION & MAINTENANCE		11,077,916	(633,347)	10,444,569	4,908,369	1,336,821	2,086,548	1,594,864	122,085	178,942	216,939	
Depreciation		2,906,801	450,941	3,357,742	1,236,781	542,136	263,043	0	544,460	541,056	230,267	Dep Sch
Other Taxes		992,357	0	992,357	452,531	198,361	133,436	0	66,531	104,670	36,828	9
Income Taxes		1,486,376	(197,158)	1,289,218	587,905	257,700	173,353	0	86,434	135,982	47,844	9
Utility Operating Income		3,856,918	(312,602)	3,544,316	1,616,266	708,468	476,583	0	237,624	373,842	131,534	9
TOTAL REVENUES REQUIRED		20,320,368	(692,166)	19,628,202	8,801,852	3,043,485	3,132,963	1,594,864	1,057,135	1,334,491	663,412	
Less Special Tariff Revenues				0	0							
DIRECT CUSTOMER REVENUES				19,628,202	8,801,852	3,043,485	3,132,963	1,594,864	1,057,135	1,334,491	663,412	
Cross check =		19,628,202										
If available insert												
Labor Percentages (Code 11) from utility will affect items followed by *					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	205,154	114,912	50,373	39,869	
Small mains with overhead	584,650	327,477	143,554	113,619	
Total Expense less Adm. & General and less Pro Forma Adjustments		3,429,170	678,627	1,053,849	
% Small Mains to Total Expense		9.55%	21.15%	10.78%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		471,049	282,963	224,958	
Depreciation		345,761	158,015	95,211	
Other Taxes		126,512	57,816	48,299	
Income Taxes		164,358	75,111	62,747	Total
Utility Operating Income		451,852	206,495	172,505	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		1,559,531	780,399	603,721	2,943,651

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	Residential	Commercial	Industrial	Raw Water	Class 7	Class 8	Pub Auth	Sales for Resale	Total
Remove From	1,605,625	512,510	226,368	409,941	0	0	38,986	150,222	2,943,651
Reallocate to Blocks	2,373,391	509,324	18,328	891	0	0	37,264	4,454	2,943,651
Net Adjustment	767,766	(3,186)	(208,041)	(409,050)	0	0	(1,722)	(145,768)	(0)

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Customer Group Allocation Factors"

Customer Class	Annual Consumption			% of Ave.	Max Day			% of Ave.	Max Hour			% of Ave.	Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%		Amt. MGD	Excess MGD	%		Amt. MGD	Excess MGD	%		Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	4,121,529	8.446	44.47%	225%	19.004	10.558	64.78%	300%	25.339	16.893	53.96%		528,487	91.39%	553,533	85.15%	533,932	91.58%
Commercial	1,597,617	3.274	17.24%	180%	5.893	2.619	16.07%	250%	8.185	4.911	15.69%		34,440	5.96%	74,650	11.48%	42,730	7.33%
Industrial	847,336	1.736	9.14%	150%	2.605	0.868	5.33%	200%	3.473	1.736	5.55%		711	0.12%	6,951	1.07%	1,629	0.28%
U OF IL	1,875,704	3.844	20.24%	125%	4.805	0.961	5.90%	150%	5.766	1.922	6.14%		60	0.01%	3,780	0.58%	318	0.05%
Raw Water	0	0.000	0.00%	125%	0.000	0.000	0.00%	150%	0.000	0.000	0.00%		0	0.00%	0	0.00%	0	0.00%
Standby	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%		0	0.00%	0	0.00%	0	0.00%
Pub. Authority	117,824	0.241	1.27%	190%	0.459	0.217	1.33%	250%	0.604	0.362	1.16%		2,857	0.49%	8,712	1.34%	4,102	0.70%
Other Water Utilitie	616,243	1.263	6.65%	150%	1.894	0.631	3.87%	150%	1.894	0.631	2.02%		84	0.01%	2,460	0.38%	336	0.06%
SUBTOTAL	9,176,253	18.805	99.01%		34.660	15.855	97.29%		45.261	26.456	84.50%		566,639	97.99%	650,086	100.00%	583,048	100.00%
Fire Prot.	91,763	0.188	0.99%		0.630	0.442	2.71%		5.040	4.852	15.50%		11,625	2.01%	----	----	----	----
TOTAL	9,268,016	18.993	100.00%		35.290	16.297	100.00%		50.301	31.308	100.00%		578,264	100.00%	650,086	100.00%	583,048	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	U OF IL	RAW WATER	STANDBY	PUBLIC AUTHORITY	OTHER WATER UTILITIES	FIRE PROTECTION	TOTAL
Base	44.47%	17.24%	9.14%	20.24%	0.00%	0.00%	1.27%	6.65%	0.99%	100.00%
Maximum Day	64.78%	16.07%	5.33%	5.90%	0.00%	0.00%	1.33%	3.87%	2.71%	100.00%
Maximum Hour	53.96%	15.69%	5.55%	6.14%	0.00%	0.00%	1.16%	2.02%	15.50%	100.00%
Commercial	91.39%	5.96%	0.12%	0.01%	0.00%	0.00%	0.49%	0.01%	2.01%	100.00%
Meters	85.15%	11.48%	1.07%	0.58%	0.00%	0.00%	1.34%	0.38%	-----	100.00%
Services	91.58%	7.33%	0.28%	0.05%	0.00%	0.00%	0.70%	0.06%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	U OF IL	RAW WATER	STANDBY	PUBLIC AUTHORITY	OTHER WATER UTILITIES	FIRE PROTECTION	TOTAL
Base	3,914,224	1,517,260	804,717	1,781,359	0	0	111,898	585,247	87,147	8,801,851
Maximum Day	1,971,697	489,142	162,143	179,464	0	0	40,583	117,922	82,535	3,043,485
Maximum Hour	1,690,449	491,448	173,768	192,330	0	0	36,244	63,188	485,536	3,132,963
Commercial	1,457,577	94,986	1,962	165	0	0	7,880	232	32,062	1,594,864
Meters	900,125	121,392	11,304	6,147	0	0	14,167	4,000	-----	1,057,135
Services	1,222,076	97,802	3,729	728	0	0	9,388	769	-----	1,334,491
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	663,412	663,412
Adjustments *	(136,328)	(34,363)	(14,146)	(26,397)	0	0	(2,690)	(9,426)	(12,997)	(236,348)
Small Main Adjustment	767,766	(3,186)	(208,041)	(409,050)	0	0	(1,722)	(145,768)		(0)
TOTAL COST OF SERVICE	11,787,586	2,774,481	935,435	1,724,746	0	0	215,747	616,164	1,337,694	19,391,854
Percent of COSS	60.79%	14.31%	4.82%	8.89%	0.00%	0.00%	1.11%	3.18%	6.90%	100.00%

\* for Other and for Unbilled

Special Tariff Revenues	0
Other Operating Revenues	188,875
Unbilled Revenues	47,473
Total Revenues	19,628,201

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Public Fire Protection Surcharge"  
"Single - Tier Method"

Per Hydrant Cost Customer	\$320.05 Hydrants	Total Cost	Municipal Paid	Customer Surcharge	MONTHLY BILLS				Fire Prot Bills	Equiv. Fire Prot Bills	Monthly Rates				Actual Surcharge	Connections Revenues Per Hydrant
					5/8"	3/4"	1"	1 1/2"			5/8"	3/4"	1"	1 1/2"		
Total	3,604	1,153,479	50,922	1,102,557	486,864	10,212	12,276	6,876	516,228	567,252					1,101,673	
Outside	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
City of Champaign	2,039	652,578	0	652,578	269,088	5,964	7,980	4,308	287,340	319,524	2.04	3.06	5.10	10.20	651,829	11.74
City of Urbana	947	303,085	0	303,085	131,580	1,728	2,904	1,728	137,940	150,072	2.02	3.03	5.05	10.10	303,145	12.14
Savoy FD	164	52,488	9,840	42,648	19,620	408	744	552	21,324	24,852	1.72	2.58	4.30	8.60	42,745	10.84
Bondville FD	16	5,121	3,882	1,239	2,040	48	12	12	2,112	2,202	0.56	0.84	1.40	2.80	1,233	11.00
Edge-Scott FD	28	8,961	561	8,400	10,080	60	12	36	10,188	10,380	0.81	1.22	2.03	4.05	8,408	30.32
Windsor Park FD	23	7,361	0	7,361	2,088	192	36	0	2,316	2,466	2.99	4.49	7.48	14.95	7,374	8.39
Carrol FD	45	14,402	0	14,402	15,348	204	96	48	15,696	16,134	0.89	1.34	2.23	4.45	14,361	29.07
Cherry Hills FD	31	9,921	7,522	2,400	3,060	168	36	12	3,276	3,462	0.69	1.04	1.73	3.45	2,390	8.81
Eastern Prairie FI	24	7,681	5,823	1,858	8,208	120	96	96	8,520	9,108	0.20	0.30	0.50	1.00	1,822	29.58
Rolling Acres FD	14	4,481	0	4,481	1,776	60	0	0	1,836	1,866	2.40	3.60	6.00	12.00	4,478	10.93
Lincolnshire Field	92	29,444	22,323	7,122	7,776	1,236	288	0	9,300	10,350	0.69	1.04	1.73	3.45	7,149	8.42
St. Joseph-Stantc	177	56,675	0	56,675	16,200	24	72	84	16,380	16,836	3.37	5.06	8.43	16.85	56,738	7.71
Tolono FD	4	1,280	971	310	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	0.00
H	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
I	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
J	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
K	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
L	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
M	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
N	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
O	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
P	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Q	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
R	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
S	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
T	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
U	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
V	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
W	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
X	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Y	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Z	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
AA	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
BB	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
CC	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	

Total cost per fire protection customer based on number of Hydrants

Docket No. 02-0690

## Cost of Service Study

ICC Staff Exhibit 9.0

## "Fire Protection Allocation"

ICC Schedule 9.1-C

FIRE PROTECTION	Equiv. Conn.
Public, monthly	43,249
Private, monthly	11,523
Total Equiv. Connections	54,772
Total Fire Protection per Cost of Service Study	1,337,694
Less Billing Costs	32,062
Less Hydrant Costs	663,412
Total Non-hydrant Fire Protection Costs	642,220
Total Non-hydrant Fire Protection Costs Per Equiv. Connection, monthly	11.73
Public Fire Protection Connection Costs	507,105
Plus Hydrant Costs	646,374
Total Public Fire Protection Costs	1,153,479
Total Private Fire Protection Connection Costs	135,115
Plus Billing Costs	32,062
Plus Hydrant Costs	17,038
Total Private Fire Protection Costs	184,214

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3"	0.056	3.41	3.00
3	0.162	4.65	5.00
4	0.344	6.79	7.00
6	1.000	14.48	14.00
8	2.131	27.74	28.00
10	3.832	47.69	48.00
12	6.190	75.34	75.00
16	13.192	157.43	157.00

# - ratio based on capacity

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit 9.0  
ICC Schedule 9.1-C

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Equiv. Meters and Services"

page 15 of 17

ITEM	METER RATIO	SERVICE RESIDENTIAL RATIO	COMMERCIAL	INDUSTRIAL	U OF RAW WATER	STANDBY	PUB AUTH.	OTHER WATER UTILITIES	TOTAL		
METER SIZE											
5/8" disk	1.0	1.0	511420	20493	53	0	0	0	1240	0	533206
3/4" disk	1.5	1.1	8358	2600	24	0	0	0	270	0	11252
1" disk	2.5	1.4	6549	5978	120	0	0	0	589	0	13236
1 1/2" disk	5.0	1.8	1945	3842	120	0	0	0	250	0	6157
2" disk	8.0	2.5	156	1229	250	0	0	0	468	0	2103
3" disk	15.0	3.0	12	208	84	0	0	0	40	24	368
4" disk	25.0	4.0	12	54	12	0	0	0	0	36	114
6" disk	50.0	5.0	35	36	48	48	0	0	0	24	191
8" disk	80.0	6.0	0	0	0	0	0	0	0	0	0
10" disk	115.0	6.5	0	0	0	12	0	0	0	0	12
12" disk	168.0	7.0	0	0	0	0	0	0	0	0	0
3" turbine	17.5	3.0	0	0	0	0	0	0	0	0	0
4" turbine	30.0	4.0	0	0	0	0	0	0	0	0	0
6" turbine	62.5	5.0	0	0	0	0	0	0	0	0	0
8" turbine	90.0	6.0	0	0	0	0	0	0	0	0	0
10" turbine	145.0	6.5	0	0	0	0	0	0	0	0	0
Parallel	0.0	0.0	0	0	0	0	0	0	0	0	0
Equiv Meters			553533	74650	6951	3780	0	0	8712	2460	650086
Equiv Services			533932	42730	1629	318	0	0	4102	336	583048



Act. No.	Account	Utility Depreciation	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	INTANGIBLE PLANT	87,862										
301	Organization	30,246	0	30,246	30,246							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	57,616	0	57,616	57,616							1
	SOURCE OF SUPPLY PLANT	61,850										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	2,645	0	2,645	1,839	806	0	0	0	0	0	13
305	Collecting reservoirs	29	0	29	29							1
306	Intakes	0	0	0	0	0						2
307	Wells	24,310	0	24,310	16,901	7,409						2
308	Infiltration Galleries	0	0	0	0	0						2
309	Supply mains	34,866	0	34,866	24,240	10,626						2
339	Other plant	0	0	0	0	0						2
	PUMPING PLANT	188,747										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	21,269	0	21,269	11,913	5,222	4,133	0	0	0	0	13
310	Power Generation Equip.	2,335	0	2,335	1,308	573	454					12
310	Other power production	0	0	0	0	0	0					12
311	Steam pumping	0	0	0	0	0	0					12
311	Electrical Pumping	152,435	0	152,435	85,383	37,429	29,624					12
311	Diesel Pumping	12,708	0	12,708	7,118	3,120	2,470					12
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	463,611										
302	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	70,998	0	70,998	49,360	21,638	0	0	0	0	0	13
320	Water treatment	392,613	0	392,613	272,958	119,655						2
339	Other Plant & Misc. Equip.	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	1,333,303										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	28,144	0	28,144	5,976	2,620	2,612	0	7,008	6,964	2,964	13
330	Dist. reservoirs and standpipes	24,951	0	24,951			24,951					4
331	Mains	494,796	0	494,796	277,148	121,491	96,157					12
333	Services	322,965	0	322,965						322,965		7
334	Meters	201,098	0	201,098					201,098			6
334	Meter installations	123,899	0	123,899					123,899			6
335	Hydrants	137,450	0	137,450							137,450	8
336	Backflow Prevention Devices	0	0	0						0		7
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	450,324										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	10,970	0	10,970	4,041	1,771	859	0	1,779	1,768	752	9
340	Office furniture	228,818	0	228,818	84,282	36,945	17,925	0	37,103	36,871	15,692	9
341	Transportation	129,794	0	129,794	47,808	20,956	10,168	0	21,046	20,915	8,901	9
342	Stores	879	0	879	324	142	69	0	143	142	60	9
343	Tools etc	32,936	0	32,936	12,132	5,318	2,580	0	5,341	5,307	2,259	9
344	Laboratory	5,868	0	5,868	2,161	947	460	0	951	946	402	9
345	Power operated	24,030	0	24,030	8,851	3,880	1,882	0	3,896	3,872	1,648	9
346	Communications	13,963	0	13,963	5,143	2,254	1,094	0	2,264	2,250	958	9
347	Miscellaneous	3,066	0	3,066	1,129	495	240	0	497	494	210	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	2,585,697	0	2,585,697	1,007,907	403,297	195,678	0	405,025	402,493	171,296	
	Allocation Code 9 Calculation	Cross check =		2,585,697	36.83%	16.15%	7.83%	0.00%	16.22%	16.11%	6.86%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
“Explanation of Allocation Codes”

- 1 This code refers to allocations made 100 percent to Base Cost. Base Costs are costs which tend to vary with the quantity of water used and do not contain elements necessary to meet variations in demand.
- 2 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum consumption on the Maximum Day. Extra Capacity costs are those costs associated with meeting rate of use requirements in excess of the average.
- 3 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum hourly consumption.
- 4 This code refers to allocations made 100 percent to Extra Capacity - Maximum Hour.
- 5 This code refers to allocations made 100 percent to commercial costs associated with serving customers irrespective to the amount of water used or the maximum demand. They include meter reading, billing, customer accounting and collection expenses.
- 6 This code refers to allocations made 100 percent to maintenance and capital charges on customer meters.
- 7 This code refers to allocations made 100 percent to maintenance and capital charges on customer services.
- 8 This code refers to allocations made 100 percent to Fire Protection - Hydrants.
- 9 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of plant in service as developed and shown on page 6 of 17 of this Schedule.
- 10 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of operating and maintenance expenses has been allocated before administrative and general expenses and without considering fuel, power and chemical costs.
- 11 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of labor costs if available or on the basis of Allocation Code 10 if not.
- 12 This code refers to allocations divided among Base Cost, Extra Capacity -Maximum Day and Extra Capacity - Maximum Hour.
- 13 This code refers to allocations divided among various cost functions in the same percentage ratio as the average of all items in that subgroup.

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM	PRESENT RATES	PROPOSED RATES	STAFF RATES	RESIDENTIAL BILL ANA. ADJUST.	COMMERCIAL BILL ANA. ADJUST.	INDUSTRIAL BILL ANA. ADJUST.	RAW WATER BILL ANA. ADJUST.	CLASS 7 BILL ANA. ADJUST.	CLASS 8 BILL ANA. ADJUST.	PUB. AUTH. BILL ANA. ADJUST.	SALES FOR RE BILL ANA. ADJUST.	TOTAL
CUS CHARGES, MONTHLY												
5/8" disk	5.49	6.22	8.00	61,700	0	5,002	0	1	0	0	0	66,963
3/4" disk	12.00	13.59	18.00	56	0	40	0	6	0	0	0	102
1" disk	17.75	20.10	25.00	666	0	722	0	35	0	0	0	1,559
1 1/2" disk	23.00	26.05	46.00	36	0	228	0	0	0	0	0	312
2" disk	34.00	38.50	68.00	36	0	661	0	24	0	0	0	879
3" disk	51.00	57.75	102.00	0	0	60	0	0	0	0	0	95
4" disk	78.00	88.33	156.00	0	0	48	0	12	0	0	0	108
6" disk	142.00	160.80	284.00	0	0	0	0	36	0	0	0	53
8" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
10" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
12" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
3" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
4" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
6" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
8" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
10" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Remove Parallel Meters	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Total Bills				62,494	0	6,761	0	114	0	0	0	70,071
TOTAL CUS CHARGE REVENUES Present				353,279	0	75,278	0	7,563	0	0	0	454,380
Proposed				400,245	0	85,261	0	8,564	0	0	0	514,749
Staff				515,362	0	127,830	0	14,719	0	0	0	692,229
USAGE CHARGES (100 cubic feet)				10 cubic feet	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)
First Block	2.4200	2.7404	2.7404	386,030	0	59,679	0	2,134	0	0	0	452,855
Second Block	1.9800	2.2422	2.0562	20,806	0	143,569	0	40,364	0	0	0	256,872
Third Block	1.4900	1.6873	1.4900	0	0	2,025	0	87,802	0	0	0	373,665
Fourth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fifth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Sixth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
ADJUSTMENTS												
First Block	2.4200	2.7404	2.7404	0	0	0	0	0	0	0	0	0
Second Block	1.9800	2.2422	2.0562	0	0	0	0	0	0	0	0	0
Third Block	1.4900	1.6873	1.4900	0	0	0	0	0	0	0	0	0
Fourth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fifth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Sixth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Total Usage				406,836	0	205,273	0	130,300	0	0	0	1,083,392

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB. AUTH.		SALES FOR RE		TOTAL
		BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
USAGE CHARGE REVENUES	Present	975,388	0	431,707	0	215,910	0	0	0	0	0	0	0	538,271	0	0	0	2,161,277
	Proposed	1,104,528	0	488,872	0	244,500	0	0	0	0	0	0	0	609,547	0	0	0	2,447,447
	Staff	1,100,658	0	461,768	0	219,669	0	0	0	0	0	0	0	543,849	0	0	0	2,325,945
OTHER ADJUSTMENTS	Present	3	0	3	0	6	0	0	0	0	0	0	0	31	0	0	0	43
	Proposed	3	0	3	0	7	0	0	0	0	0	0	0	35	0	0	0	49
	Staff	4	0	3	0	6	0	0	0	0	0	0	0	32	0	0	0	46
TOTAL METERED REVENUES	Present	1,328,670	0	506,989	0	223,479	0	0	0	0	0	0	0	556,562	0	0	0	2,615,700
	Proposed	1,504,777	0	574,136	0	253,071	0	0	0	0	0	0	0	630,261	0	0	0	2,962,245
	Staff	1,616,024	0	589,602	0	234,395	0	0	0	0	0	0	0	578,200	0	0	0	3,018,220
PVT. FIRE PROT RATES, MONTHLY		Less than								PRIVATE								
Size Connection		3"	3"	4"	6"	8"	10"	12"	16"	HYDRANTS								
Present		19.00	29.00	41.00	80.00	161.00	257.00	0.00	0.00	0.00								
Proposed		21.52	32.84	46.43	90.59	182.32	291.03	0.00	0.00	0.00								
Per Cost of Service Study		7.00	10.00	15.00	32.00	62.00	107.00	169.00	354.00	N/A								
Staff		7.00	10.00	15.00	32.00	62.00	107.00	0.00	0.00	0.00								
Units (ANNUAL)		24	0	132	294	120	0	0	0	0								
NON-METERED REVENUES		PVT. FIRE		PUBLIC FIRE		OTHER		VARIABLE		TOTAL								
				MUNICIPAL RCHARGE		TOTAL		OPERATING		REVENUES		NON-METERED						
Present		48,708		0		206,299		62		348		255,417						
Proposed		55,157		0		233,613		1,962		10,877		301,609						
Staff		18,996		0		213,782		1,962		10,877		245,617						
TOTAL REVENUES		RESIDENTIAL	COMMERCIAL	INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB AUTH		SALES FOR RESALE		NON-METERED		TOTAL
Present		1,328,670	506,989	223,479		0		0		0		556,562		0		255,417		2,871,117
Proposed		1,504,777	574,136	253,071		0		0		0		630,261		0		301,609		3,263,854
Staff		1,616,024	589,602	234,395		0		0		0		578,200		0		245,617		3,263,837
PER STAFF		RESIDENTIAL	COMMERCIAL	INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB AUTH		SALES FOR RESALE		PUB. FIRE		PVT FIRE
Cost of Service		2,028,449	612,382	195,805		0		0		0		451,738		0		213,897		18,901
Percent Increase		21.6	16.3	4.9		0.0		0.0		0.0		3.9		0.0		3.6		(61.0)
Percent Cost of Service		79.7	96.3	119.7		0.0		0.0		0.0		128.0		0.0		99.9		100.5

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit 9.0  
ICC Schedule 9.1-L

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Demand Factors"

page 3 of 17

DEMAND FACTORS		
Customer Class	Max Day	Max Hour
Residential	2.25	2.75
Commercial	1.70	2.00
Industrial	1.50	1.75
Raw Water	0.00	0.00
Class 7	0.00	0.00
Class 8	0.00	0.00
Public Authority	1.50	1.75
Resale	0.00	0.00
Fire Protection	3.61	
Gallons Per Minute	3,000	
Hours of Protection	3	

MGD PUMPAGE	
Average Daily Rate	2.750
Max. Daily Rate	3.220
Max. Hourly Pumpage Rate	4.322
Max. Hourly Consumption Rate	4.704

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit 9.0  
ICC Schedule 9.1-L

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

page 4 of 17

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	85.40%	14.60%					
Base-Max Hr.	3	58.46%		41.54%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	45.71%	7.81%	18.31%	0.00%	9.17%	14.31%	4.69%
Adm. and Gen.	10	35.63%	6.00%	10.45%	20.69%	8.15%	18.93%	0.15%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	58.46%	9.99%	31.55%				

Refer to last page for brief allocation code explanations

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

[illegible]

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	GENERAL PLANT	864,044										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	128,169	1,572	126,597	57,870	9,890	23,175	0	11,609	18,117	5,935	9
340	Office furniture	444,667	614,678	(170,011)	(77,715)	(13,282)	(31,122)	0	(15,591)	(24,330)	(7,971)	9
341	Transportation	63,850	6,798	57,052	26,079	4,457	10,444	0	5,232	8,165	2,675	9
342	Stores	2,325	2,906	(581)	(266)	(45)	(106)	0	(53)	(83)	(27)	9
343	Tools etc	110,924	36,764	74,160	33,900	5,794	13,576	0	6,801	10,613	3,477	9
344	Laboratory	21,580	14,842	6,738	3,080	526	1,233	0	618	964	316	9
345	Power operated	61,918	41,811	20,107	9,191	1,571	3,681	0	1,844	2,878	943	9
346	Communications	25,470	41,507	(16,037)	(7,331)	(1,253)	(2,936)	0	(1,471)	(2,295)	(752)	9
347	Miscellaneous	5,141	1,210	3,931	1,797	307	720	0	360	563	184	9
348	Other Tangible Plant	32,087	0	32,087	14,667	2,507	5,874	0	2,943	4,592	1,504	9
399	RECONCILIATION	(156,729)	(5,433)	(151,296)	(69,160)	(11,820)	(27,696)	0	(13,874)	(21,652)	(7,093)	9
	TOTAL PLANT IN SERVICE	14,451,575	7,001,844	7,449,731	3,455,501	574,801	1,346,853	0	674,707	1,052,924	344,944	
	Allocation Code 9 Calculation	Cross check =		7,449,731	45.71%	7.81%	18.31%	0.00%	9.17%	14.31%	4.69%	
				Total	Base Cost	Max Day	Max Hour					
	Small Main Plant in Service			2,537,015	1,483,161	253,486	800,368					
	Small Main CIAC			686,653	401,423	68,607	216,623					
	Total Plant CIAC			686,653	401,423	68,607	216,623					
	Allocated Total Plant less General				3,463,388	576,149	1,350,011					
	% Small Main to Allocated Total Plant				42.82%	44.00%	59.29%					
	Small Main with General Plant Allocated				1,479,784	252,893	798,495					
	Small Main with General Plant Allocated less CIAC				1,078,361	184,286	581,873					
	Allocated Total Plant less CIAC				3,054,078	506,194	1,130,230					
	% Small Main less CIAC to Allocated Total Plant less CIAC				35.31%	36.41%	51.48%					



IAWC

Docket No. 02-0690

ICC Staff Exhibit 9.0

ICC Schedule 9.1-L

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 7 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs Billing	Meter	Services	Fire Service	Alloc. Code
	SOURCE OF SUPPLY	173,013										
601	Salaries and Wages	49,316	0	49,316	42,118	7,198						2
610	Purchased water	0	0	0	0							1
615	Purchased Power	123,697	0	123,697	123,697							1
616	Fuel for Power Prod.	0	0	0	0							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	41,357										
620	Materials and Supplies	212	0	212	181	31						2
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	0	0	0	0	0						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
668	Water Res. Consv. Exp.	0	0	0	0	0						2
675	Misc. Expenses	41,145	0	41,145	35,139	6,006						2
	PUMPING EXPENSES	10,418										
601	Salaries and Wages	10,418	0	10,418	6,090	1,041	3,287					12
615	Purchased Power	0	0	0	0							1
616	Fuel for power production	0	0	0	0							1
620	Materials and Supplies	0	0	0	0	0	0					12
631	Contractual Serv.	0	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0	0					12
636	Contractual Serv. - Other	0	0	0	0	0	0					12
641	Rental of Property	0	0	0	0	0	0					12
	PUMPING EXPENSES	1,332										
642	Rental of Equipment	0	0	0	0	0	0					12
650	Transportation Expenses	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	1,332	0	1,332	779	133	420					12
	WATER TREATMENT EXPENSE	49,693										
601	Salaries and Wages	7,988	0	7,988	6,822	1,166						2
615	Purchased Power	0	0	0	0	0						2
616	Fuel for power production	0	0	0	0	0						2
618	Chemicals	41,705	0	41,705	41,705							1
620	Materials and Supplies	0	0	0	0	0						2

IAWC

Docket No. 02-0690

ICC Staff Exhibit 9.0

ICC Schedule 9.1-L

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 8 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	WATER TREATMENT EXPENSE	25,696										
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	15,164	0	15,164	12,951	2,213						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
675	Misc. Expenses	10,532	0	10,532	8,995	1,537						2
	TRANSMISSION/DISTRIBUTION	270,060										
601	Salaries and Wages	227,417	0	227,417	72,828	12,041	38,020	0	31,291	72,679	558	13
661	Storage Facilities	0	0	0			0					4
662	Mains	22,893	0	22,893	13,383	2,287	7,222					12
663	Meters	5,944	0	5,944					5,944			6
664	Services	13,806	0	13,806						13,806		7
615	Purchased Power	0	0	0	0							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION	130,414										
618	Chemicals	451	0	451	451							1
620	Materials and Supplies	94,031	0	94,031	30,113	4,979	15,720	0	12,938	30,051	231	13
672	Dist. reservoirs and standpipes	0	0	0			0					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	0	0	0	0							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property	0	0	0	0	0	0	0	0	0	0	13
677	Hydrants	106	0	106							106	8
642	Rental of Equipment	0	0	0	0	0	0	0	0	0	0	13
650	Transportation Exp.	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	35,826	0	35,826	11,473	1,897	5,989	0	4,929	11,449	88	13
	CUSTOMER ACCOUNTS EXPENSE	106,845										
601	Salaries and Wages	69,778	0	69,778				69,778				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	21,306	1,613	22,919	8,167	1,374	2,396	4,742	1,868	4,339	33	10
620	Materials and Supplies	15,761	0	15,761				15,761				5
	CUSTOMER ACCOUNTS EXPENSE	54,323										
631	Contractual Serv.	54,111	0	54,111				54,111				5
635	Contractual Serv. - Testing	0	0	0				0				5
636	Contractual Serv. - Other	212	0	212				212				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	0	0	0				0				5
650	Transportation Exp.	0	0	0				0				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	0	0	0				0				5

Act.	Utility	Staff	Net	Base	Extra Capacity		Customer Costs			Fire	Alloc.	
No.	Account	Cost	Adjust.	Cost	Cost	Max Day	Max Hour	Billing	Meter	Services	Service	Code
ADMINISTRATIVE AND GENERAL												
	842,912											
601	Salaries and Wages-employees	119,916	0	119,916	42,729	7,190	12,534	24,810	9,775	22,704	174	10
603	Salaries and Wages-officers	11,486	0	11,486	4,093	689	1,201	2,376	936	2,175	17	10
604	Pensions and benefits *	225,191	0	225,191	80,241	13,502	23,538	46,592	18,356	42,635	327	10
631-636	Outside services	98,307	0	98,307	35,029	5,894	10,276	20,340	8,013	18,612	143	10
615	Purchased Power	0	0	0	0	0	0	0	0	0	0	10
616	Fuel for Power Prod.	0	0	0	0	0	0	0	0	0	0	10
656-659	Insurance	61,571	0	61,571	21,939	3,692	6,436	12,739	5,019	11,657	90	10
641-642	Rents	15,788	0	15,788	5,626	947	1,650	3,267	1,287	2,989	23	10
650	Transportation Exp.	48,348	0	48,348	17,228	2,899	5,054	10,003	3,941	9,154	70	10
620	Materials and Supplies	24,345	0	24,345	8,675	1,460	2,545	5,037	1,984	4,609	35	10
660	Advertising	7,121	0	7,121	2,537	427	744	1,473	580	1,348	10	10
666-667	Regulatory Expense	2,806	0	2,806	1,000	168	293	581	229	531	4	10
675	Misc. Expenses	228,033	0	228,033	81,254	13,672	23,835	47,180	18,588	43,173	331	10
PRO FORMA ADJUSTMENTS												
Labor *	0	(10,705)	(10,705)	(3,814)	(642)	(1,119)	(2,215)	(873)	(2,027)	(16)	10	
Fuel and Power	0	(3,017)	(3,017)	(3,017)							1	
Chemicals	0	794	794	794							1	
Waste Disposal	0	0	0	0	0						2	
Management Fees	0	(4,636)	(4,636)	(2,710)	(463)	(1,463)					12	
Group Insurance *	0	0	0	0	0	0	0	0	0	0	10	
Pensions *	0	0	0	0	0	0	0	0	0	0	10	
Regulatory Expenses	0	0	0	0	0	0	0	0	0	0	10	
Insurance other *	0	0	0	0	0	0	0	0	0	0	10	
Customer Accounting	0	0	0					0			5	
Rents	0	(2,217)	(2,217)	(790)	(133)	(232)	(459)	(181)	(420)	(3)	10	
General Office Exp	0	0	0	0	0	0	0	0	0	0	10	
Maint-other	0	364,250	364,250	129,791	21,839	38,073	75,363	29,691	68,963	529	10	
Miscellaneous	0	(5,656)	(5,656)	(2,015)	(339)	(591)	(1,170)	(461)	(1,071)	(8)	10	
SUBTOTAL OPER. & MAIN.	1,706,063	340,426	2,046,489	833,480	112,703	195,828	390,521	153,856	357,357	2,744		
RECONCILIATION		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
TOTAL OPERATION & MAINTENANCE	1,706,063	340,426	2,046,489	833,480	112,703	195,828	390,521	153,856	357,357	2,744		
Depreciation	705,682	(54,405)	651,277	297,798	50,896	43,087	0	118,665	119,539	21,291	Dep Sch	
Other Taxes	143,154	0	143,154	65,438	11,184	26,206	0	13,128	20,487	6,712	9	
Income Taxes	145,307	40,275	185,582	84,833	14,499	33,973	0	17,019	26,559	8,701	9	
Utility Operating Income	563,779	(59,635)	504,144	230,452	39,386	92,289	0	46,232	72,148	23,636	9	
TOTAL REVENUES REQUIRED	3,263,985	266,661	3,530,646	1,512,001	228,669	391,383	390,521	348,900	596,090	63,083		
Less Special Tariff Revenues			0	0								
DIRECT CUSTOMER REVENUES			3,530,646	1,512,001	228,669	391,383	390,521	348,900	596,090	63,083		
Cross check =	3,530,646											
If available insert												
Labor Percentages (Code 11) from utility				0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
will affect items followed by *												

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	18,832	11,010	1,882	5,941	
Small mains with overhead	176,225	103,022	17,607	55,595	
Total Expense less Adm. & General and less Pro Forma Adjustments		414,892	41,904	73,054	
% Small Mains to Total Expense		24.83%	42.02%	76.10%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		207,515	47,356	149,027	
Depreciation		105,149	18,529	22,182	
Other Taxes		23,105	4,072	13,491	
Income Taxes		29,953	5,278	17,490	Total
Utility Operating Income		81,370	14,339	47,513	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		447,093	89,575	249,704	786,372

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	Residential	Commercial	Industrial	Raw Water	Class 7	Class 8	Pub Auth	Sales for Resale	Total
Remove From	359,105	139,546	79,549	0	0	0	208,171	0	786,372
Reallocate to Blocks	450,771	225,197	47,087	0	0	0	63,316	0	786,372
Net Adjustment	91,666	85,651	(32,461)	0	0	0	(144,855)	0	0

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Customer Group Allocation Factors"

Customer Class	Annual Consumption			% of Ave.	Max Day			% of Ave.	Max Hour			Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%		Amt. MGD	Excess MGD	%		Amt. MGD	Excess MGD	%	Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	406,836	0.834	37.18%	225%	1.876	1.042	19.27%	275%	2.293	1.459	56.51%	62,494	88.47%	63,917	73.99%	62,849	86.10%
Commercial	205,273	0.421	18.76%	170%	0.715	0.294	5.45%	200%	0.841	0.421	16.29%	6,761	9.57%	15,395	17.82%	8,492	11.63%
Industrial	130,300	0.267	11.91%	150%	0.401	0.134	2.47%	175%	0.467	0.200	7.76%	114	0.16%	2,390	2.77%	345	0.47%
Raw Water	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Class 7	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Class 8	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Pub. Authority	340,983	0.699	31.16%	150%	1.048	0.349	6.46%	175%	1.223	0.524	20.30%	702	0.99%	4,679	5.42%	1,314	1.80%
Sales for Resale	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
SUBTOTAL	1,083,392	2.220	99.01%		4.040	1.820	33.65%		4.824	2.604	100.86%	70,071	99.19%	86,381	100.00%	72,999	100.00%
Fire Prot.	10,834	0.022	0.99%		3.610	3.588	66.35%		0.000	-0.022	0.00%	570	0.81%	----	----	----	----
TOTAL	1,094,226	2.242	100.00%		7.650	5.407	100.00%		4.824	2.582	100.86%	70,641	100.00%	86,381	100.00%	72,999	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	RAW WATER	CLASS 7	CLASS 8	PUBLIC AUTHORITY	SALES FOR RESALE	FIRE PROTECTION	TOTAL
Base	37.18%	18.76%	11.91%	0.00%	0.00%	0.00%	31.16%	0.00%	0.99%	100.00%
Maximum Day	19.27%	5.45%	2.47%	0.00%	0.00%	0.00%	6.46%	0.00%	66.35%	100.00%
Maximum Hour	56.51%	16.29%	7.76%	0.00%	0.00%	0.00%	20.30%	0.00%	0.00%	100.86%
Commercial	88.47%	9.57%	0.16%	0.00%	0.00%	0.00%	0.99%	0.00%	0.81%	100.00%
Meters	73.99%	17.82%	2.77%	0.00%	0.00%	0.00%	5.42%	0.00%	-----	100.00%
Services	86.10%	11.63%	0.47%	0.00%	0.00%	0.00%	1.80%	0.00%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	RAW WATER	CLASS 7	CLASS 8	PUBLIC AUTHORITY	SALES FOR RESALE	FIRE PROTECTION	TOTAL
Base	562,165	283,646	180,048	0	0	0	471,170	0	14,970	1,512,000
Maximum Day	44,072	12,453	5,646	0	0	0	14,775	0	151,723	228,669
Maximum Hour	221,175	63,769	30,359	0	0	0	79,446	0	0	394,748
Commercial	345,482	37,376	630	0	0	0	3,881	0	3,151	390,521
Meters	258,167	62,182	9,651	0	0	0	18,899	0	-----	348,900
Services	513,207	69,341	2,814	0	0	0	10,728	0	-----	596,090
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	63,083	63,083
Adjustments *	(7,486)	(2,036)	(882)	0	0	0	(2,306)	0	(129)	(12,839)
Small Main Adjustment	91,666	85,651	(32,461)	0	0	0	(144,855)	0		0
TOTAL COST OF SERVICE	2,028,449	612,382	195,805	0	0	0	451,738	0	232,798	3,521,172
Percent of COSS	57.61%	17.39%	5.56%	0.00%	0.00%	0.00%	12.83%	0.00%	6.61%	100.00%

\* for Other and for Unbilled

Special Tariff Revenues	0
Other Operating Revenues	1,962
Unbilled Revenues	10,877
Total Revenues	3,534,011

Docket No. 02-0690

## Cost of Service Study

ICC Staff Exhibit 9.0

## "Fire Protection Allocation"

ICC Schedule 9.1-L

FIRE PROTECTION	Equiv. Conn.
Public, monthly	5,712
Private, monthly	596
Total Equiv. Connections	6,308
Total Fire Protection per Cost of Service Study	232,798
Less Billing Costs	3,151
Less Hydrant Costs	63,083
Total Non-hydrant Fire Protection Costs	166,564
Total Non-hydrant Fire Protection Costs Per Equiv. Connection, monthly	26.40
Public Fire Protection Connection Costs	150,815
Plus Hydrant Costs	63,083
Total Public Fire Protection Costs	213,897
Total Private Fire Protection Connection Costs	15,749
Plus Billing Costs	3,151
Plus Hydrant Costs	0
Total Private Fire Protection Costs	18,901

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3"	0.056	7.00	7.00
3	0.162	9.79	10.00
4	0.344	14.62	15.00
6	1.000	31.93	32.00
8	2.131	61.79	62.00
10	3.832	106.71	107.00
12	6.190	168.97	169.00
16	13.192	353.83	354.00

# - ratio based on capacity

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Public Fire Protection Surcharge"  
"Single - Tier Method"

Per Hydrant Cost Customer	\$449.36 Hydrants	Total Cost	Municipal Paid	Customer Surcharge	MONTHLY BILLS				Fire Prot Bills	Equiv. Fire Prot Bills	Monthly Rates				Actual Surcharge	Connections Revenues Per Hydrant
					5/8"	3/4"	1"	1 1/2"			5/8"	3/4"	1"	1 1/2"		
Total	476	213,897	0	213,897	69,621	6	133	780	70,540	73,863					213,782	
Outside	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
City Of Lincoln	455	204,461	0	204,461	68,412	0	60	780	69,252	72,462	2.82	4.23	7.05	14.10	204,343	12.68
Outside City of Lin	21	9,437	0	9,437	1,209	6	73	0	1,288	1,401	6.74	10.11	16.85	33.70	9,439	5.11
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
A	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
B	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
C	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
D	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
E	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
F	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
G	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
H	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
I	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
J	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
K	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
L	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
M	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
N	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
O	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
P	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Q	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
R	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
S	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
T	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
U	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
V	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
W	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
X	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Y	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Z	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
AA	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
BB	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
CC	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	

Total cost per fire protection customer based on number of Hydrants



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Equiv. Meters and Services"

ITEM	METER RATIO	SERVICE RESIDENTIAL RATIO	COMMERCIAL	INDUSTRIAL	RAW WATER	PUB AUTH	RESALE	CLASS 7	CLASS 8	TOTAL
METER SIZE										
5/8" disk	1.0	1.0	61700	5002	1	0	0	260	0	66963
3/4" disk	1.5	1.1	56	40	6	0	0	0	0	102
1" disk	2.5	1.4	666	722	35	0	0	136	0	1559
1 1/2" disk	5.0	1.8	36	228	0	0	0	48	0	312
2" disk	8.0	2.5	36	661	24	0	0	158	0	879
3" disk	15.0	3.0	0	60	0	0	0	35	0	95
4" disk	25.0	4.0	0	48	12	0	0	48	0	108
6" disk	50.0	5.0	0	0	36	0	0	17	0	53
8" disk	80.0	6.0	0	0	0	0	0	0	0	0
10" disk	115.0	6.5	0	0	0	0	0	0	0	0
12" disk	168.0	7.0	0	0	0	0	0	0	0	0
3" turbine	17.5	3.0	0	0	0	0	0	0	0	0
4" turbine	30.0	4.0	0	0	0	0	0	0	0	0
6" turbine	62.5	5.0	0	0	0	0	0	0	0	0
8" turbine	90.0	6.0	0	0	0	0	0	0	0	0
10" turbine	145.0	6.5	0	0	0	0	0	0	0	0
Parallel	0.0	0.0	0	0	0	0	0	0	0	0
Equiv Meters			63917	15395	2390	0	0	4679	0	86381
Equiv Services			62849	8492	345	0	0	1314	0	72999

Act. No.	Account	Utility Depreciation	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	INTANGIBLE PLANT	7,811										
301	Organization	3,739	0	3,739	3,739							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	4,072	0	4,072	4,072							1
	SOURCE OF SUPPLY PLANT	15,657										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	4,094	0	4,094	3,496	598	0	0	0	0	0	13
305	Collecting reservoirs	0	0	0	0							1
306	Intakes	0	0	0	0	0						2
307	Wells	10,592	0	10,592	9,046	1,546						2
308	Infiltration Galleries	0	0	0	0	0						2
309	Supply mains	971	0	971	829	142						2
339	Other plant	0	0	0	0	0						2
	PUMPING PLANT	38,687										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	3,569	0	3,569	2,086	357	1,126	0	0	0	0	13
310	Power Generation Equip.	844	0	844	493	84	266					12
310	Other power production	0	0	0	0	0	0					12
311	Steam pumping	12,064	0	12,064	7,053	1,205	3,806					12
311	Electrical Pumping	20,861	0	20,861	12,196	2,084	6,581					12
311	Diesel Pumping	1,349	0	1,349	789	135	426					12
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	232,863										
302	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	48,998	0	48,998	41,846	7,152	0	0	0	0	0	13
320	Water treatment	183,865	0	183,865	157,028	26,837						2
339	Other Plant & Misc. Equip.	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	297,028										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	13
330	Dist. reservoirs and standpipes	9,027	0	9,027			9,027					4
331	Mains	55,218	0	55,218	32,281	5,517	17,420					12
333	Services	107,234	0	107,234						107,234		7
334	Meters	105,167	0	105,167					105,167			6
334	Meter installations	1,283	0	1,283					1,283			6
335	Hydrants	19,099	0	19,099							19,099	8
336	Backflow Prevention Devices	0	0	0						0		7
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	68,518										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	3,563	0	3,563	1,629	278	236	0	649	654	116	9
340	Office furniture	48,713	0	48,713	22,274	3,807	3,223	0	8,876	8,941	1,592	9
341	Transportation	6,076	0	6,076	2,778	475	402	0	1,107	1,115	199	9
342	Stores	106	0	106	48	8	7	0	19	19	3	9
343	Tools etc	3,394	0	3,394	1,552	265	225	0	618	623	111	9
344	Laboratory	1,003	0	1,003	459	78	66	0	183	184	33	9
345	Power operated	4,322	0	4,322	1,976	338	286	0	787	793	141	9
346	Communications	1,218	0	1,218	557	95	81	0	222	224	40	9
347	Miscellaneous	123	0	123	56	10	8	0	22	23	4	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	660,564	0	660,564	306,284	51,012	43,185	0	118,934	119,810	21,339	
	Allocation Code 9 Calculation	Cross check =		660,564	45.73%	7.81%	6.62%	0.00%	18.22%	18.35%	3.27%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
“Explanation of Allocation Codes”

- 1 This code refers to allocations made 100 percent to Base Cost. Base Costs are costs which tend to vary with the quantity of water used and do not contain elements necessary to meet variations in demand.
- 2 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum consumption on the Maximum Day. Extra Capacity costs are those costs associated with meeting rate of use requirements in excess of the average.
- 3 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum hourly consumption.
- 4 This code refers to allocations made 100 percent to Extra Capacity - Maximum Hour.
- 5 This code refers to allocations made 100 percent to commercial costs associated with serving customers irrespective to the amount of water used or the maximum demand. They include meter reading, billing, customer accounting and collection expenses.
- 6 This code refers to allocations made 100 percent to maintenance and capital charges on customer meters.
- 7 This code refers to allocations made 100 percent to maintenance and capital charges on customer services.
- 8 This code refers to allocations made 100 percent to Fire Protection - Hydrants.
- 9 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of plant in service as developed and shown on page 6 of 17 of this Schedule.
- 10 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of operating and maintenance expenses has been allocated before administrative and general expenses and without considering fuel, power and chemical costs.
- 11 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of labor costs if available or on the basis of Allocation Code 10 if not.
- 12 This code refers to allocations divided among Base Cost, Extra Capacity -Maximum Day and Extra Capacity - Maximum Hour.
- 13 This code refers to allocations divided among various cost functions in the same percentage ratio as the average of all items in that subgroup.

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM	PRESENT RATES	PROPOSED RATES	STAFF RATES	RESIDENTIAL BILL ANA. ADJUST.	COMMERCIAL BILL ANA. ADJUST.	INDUSTRIAL BILL ANA. ADJUST.	RAW WATER BILL ANA. ADJUST.	CLASS 7 BILL ANA. ADJUST.	CLASS 8 BILL ANA. ADJUST.	PUB. AUTH. BILL ANA. ADJUST.	SALES FOR RE BILL ANA. ADJUST.	TOTAL
CUS CHARGES, MONTHLY												
5/8" disk	9.89	14.96	10.75	70,638	0	4,597	0	161	0	0	0	75,680
3/4" disk	12.32	18.63	12.50	263	0	275	0	60	0	0	0	634
1" disk	17.20	26.02	18.00	310	0	430	0	56	0	0	0	881
1 1/2" disk	29.38	44.44	32.00	30	0	293	0	35	0	0	0	466
2" disk	44.00	66.55	50.00	36	0	193	0	0	0	0	0	308
3" disk	85.00	128.56	90.00	0	0	24	0	0	0	0	0	36
4" disk	143.00	216.29	147.00	0	0	0	0	0	0	0	0	0
6" disk	295.00	446.19	295.00	0	0	0	0	0	0	0	0	0
8" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
10" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
12" disk	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
3" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
4" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
6" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
8" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
10" turbine	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Remove Parallel Meters	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
Total Bills				71,277	0	5,812	0	312	0	0	0	78,005
TOTAL CUS CHARGE REVENUES	Present			709,647	0	75,389	0	4,323	0	0	0	801,742
	Proposed			1,073,439	0	114,033	0	6,539	0	0	0	1,212,742
	Staff			770,986	0	81,781	0	4,609	0	0	0	870,895
USAGE CHARGES	(100 cubic feet)		10 cubic feet	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)	(100 cubic feet)
First Block	1.6300	2.4654	2.5899	515,956	0	56,528	0	4,673	0	0	0	585,142
Second Block	1.2950	1.9587	2.1792	35,010	0	99,667	0	22,082	0	0	0	219,536
Third Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fourth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fifth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Sixth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
ADJUSTMENTS												
First Block	1.6300	2.4654	2.5899	0	0	0	0	0	0	0	0	0
Second Block	1.2950	1.9587	2.1792	0	0	0	0	0	0	0	0	0
Third Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fourth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Fifth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Sixth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Seventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eighth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Ninth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Tenth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Eleventh Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Twelfth Block	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Total Usage				550,966	0	156,195	0	26,755	0	0	0	804,678

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB. AUTH.		SALES FOR RE		TOTAL
		BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
USAGE CHARGE REVENUES	Present	886,346	0	221,209	0	36,213	0	0	0	0	0	0	0	94,312	0	0	0	1,238,081
	Proposed	1,340,612	0	334,582	0	54,773	0	0	0	0	0	0	0	142,648	0	0	0	1,872,614
	Staff	1,412,568	0	363,596	0	60,224	0	0	0	0	0	0	0	157,484	0	0	0	1,993,872
OTHER ADJUSTMENTS Reconciliation	Present	0	0	(3)	0	9	0	0	0	0	0	0	0	(11)	0	0	0	(5)
	Proposed	0	0	(5)	0	14	0	0	0	0	0	0	0	(17)	0	0	0	(8)
	Staff	0	0	(5)	0	14	0	0	0	0	0	0	0	(18)	0	0	0	(8)
TOTAL METERED REVENUES	Present	1,595,994	0	296,595	0	40,545	0	0	0	0	0	0	0	106,684	0	0	0	2,039,818
	Proposed	2,414,051	0	448,611	0	61,325	0	0	0	0	0	0	0	161,362	0	0	0	3,085,349
	Staff	2,183,554	0	445,373	0	64,847	0	0	0	0	0	0	0	170,985	0	0	0	2,864,759
PVT. FIRE PROT RATES, MONTHLY		Less than								PRIVATE								
Size Connection		3"	3"	4"	6"	8"	10"	12"	16"	HYDRANTS								
Present		7.00	12.00	19.00	47.00	94.00	165.00	263.00	0.00	10.57								
Proposed		10.59	18.15	28.74	71.09	142.18	249.56	397.79	0.00	15.99								
Per Cost of Service Study		9.00	19.00	37.00	100.00	210.00	375.00	604.00	1283.00	11.85								
Staff		9.00	19.00	37.00	100.00	210.00	375.00	604.00	0.00	11.85								
Units (ANNUAL)		0	0	156	816	240	24	0	0	168								
NON-METERED REVENUES		PVT. FIRE		PUBLIC FIRE		OTHER		VARIABLE		TOTAL								
				MUNICIPAL	CHARGE	TOTAL	OPERATING	REVENUES		NON-METERED								
Present		69,612		0	293,264	293,264	7,107	654		370,637								
Proposed		105,292		0	443,562	443,562	8,110	989		557,953								
Staff		148,763		0	620,670	620,670	8,110	989		778,532								
TOTAL REVENUES		RESIDENTIAL	COMMERCIAL	INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB AUTH		SALES FOR RESALE		NON-METERED		TOTAL
Present		1,595,994	296,595	40,545		0		0		0		106,684		0		370,637		2,410,455
Proposed		2,414,051	448,611	61,325		0		0		0		161,362		0		557,953		3,643,302
Staff		2,183,554	445,373	64,847		0		0		0		170,985		0		778,532		3,643,291
PER STAFF		RESIDENTIAL	COMMERCIAL	INDUSTRIAL		RAW WATER		CLASS 7		CLASS 8		PUB AUTH		SALES FOR RESALE		PUB. FIRE		PVT FIRE
Cost of Service		2,381,244	521,052	77,450		0		0		0		222,180		0		620,374		148,998
Percent Increase		36.8	50.2	59.9		0.0		0.0		0.0		60.3		0.0		111.6		113.7
Percent Cost of Service		91.7	85.5	83.7		0.0		0.0		0.0		77.0		0.0		100.0		99.8

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit No. 9.0  
Schedule No. 9.1-S

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Demand Factors"

page 3 of 17

DEMAND FACTORS		
Customer Class	Max Day	Max Hour
Residential	2.25	3.00
Commercial	1.80	2.50
Industrial	1.50	2.00
Raw Water	0.00	0.00
Class 7	0.00	0.00
Class 8	0.00	0.00
Public Authority	2.00	2.50
Standby	2.61	2.75
Fire Protection	0.63	5.04
Gallons Per Minute	3,500	
Hours of Protection	3	

MGD PUMPAGE	
Average Daily Rate	2.167
Max. Daily Rate	3.068
Max. Hourly Pumpage Rate	4.618
Max. Hourly Consumption Rate	4.650

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit No. 9.0  
Schedule No. 9.1-S

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

page 4 of 17

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	70.63%	29.37%					
Base-Max Hr.	3	46.60%		53.40%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	49.21%	20.46%	16.95%	0.00%	4.29%	6.66%	2.44%
Adm. and Gen.	10	32.32%	13.44%	29.55%	14.16%	5.51%	4.50%	0.52%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	46.60%	19.38%	34.02%				

Refer to last page for brief allocation code explanations

"Plant in Service Allocation"

[illegible]



IAWC  
Docket No. 02-0690  
ICC Staff Exhibit No. 9.0  
Schedule No. 9.1-S

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

page 6 of 17

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	GENERAL PLANT	878,753										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	20,386	811	19,575	9,632	4,005	3,318	0	840	1,303	477	9
340	Office furniture	279,614	111,298	168,316	82,822	34,436	28,526	0	7,223	11,203	4,105	9
341	Transportation	246,113	112,745	133,368	65,626	27,286	22,603	0	5,724	8,877	3,253	9
342	Stores	514	166	348	171	71	59	0	15	23	8	9
343	Tools etc	112,154	53,729	58,425	28,749	11,953	9,902	0	2,507	3,889	1,425	9
344	Laboratory	17,075	5,423	11,652	5,734	2,384	1,975	0	500	776	284	9
345	Power operated	184,748	30,029	154,719	76,132	31,654	26,222	0	6,640	10,298	3,773	9
346	Communications	13,583	(3,663)	17,246	8,486	3,528	2,923	0	740	1,148	421	9
347	Miscellaneous	4,566	1,290	3,276	1,612	670	555	0	141	218	80	9
348	Other Tangible Plant	35,615	0	35,615	17,525	7,287	6,036	0	1,528	2,370	869	9
399	RECONCILIATION	637,210	61,674	575,536	283,201	117,750	97,541	0	24,700	38,307	14,037	9
	TOTAL PLANT IN SERVICE	15,166,062	3,184,480	11,981,582	5,937,424	2,434,537	2,016,707	0	510,680	792,015	290,220	
	Allocation Code 9	Cross check	=	11,981,582	49.21%	20.46%	16.95%	0.00%	4.29%	6.66%	2.44%	
	Calculation			Total	Base Cost	Max Day	Max Hour					
	Small Main Plant in Service			3,158,999	1,472,161	612,099	1,074,739					
	Small Main CIAC			1,050,559	489,583	203,560	357,416					
	Total Plant CIAC			1,050,559	489,583	203,560	357,416					
	Allocated Total Plant less General				5,357,734	2,193,512	1,817,048					
	% Small Main to Allocated Total Plant				27.48%	27.90%	59.15%					
	Small Main with General Plant Allocated				1,631,445	679,356	1,192,832					
	Small Main with General Plant Allocated less CIAC				1,141,862	475,796	835,416					
	Allocated Total Plant less CIAC				5,447,841	2,230,977	1,659,291					
	% Small Main less CIAC to Allocated Total Plant less CIAC				20.96%	21.33%	50.35%					

IAWC

Docket No. 02-0690

ICC Staff Exhibit No. 9.0

Schedule No. 9.1-S

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 7 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs Billing	Meter	Services	Fire Service	Alloc. Code
	SOURCE OF SUPPLY	275,888										
601	Salaries and Wages	87,926	0	87,926	62,104	25,822						2
610	Purchased water	0	0	0	0							1
615	Purchased Power	187,962	0	187,962	187,962							1
616	Fuel for Power Prod.	0	0	0	0							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	94,987										
620	Materials and Supplies	0	0	0	0	0						2
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	12,100	0	12,100	8,547	3,553						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
668	Water Res. Consv. Exp.	0	0	0	0	0						2
675	Misc. Expenses	82,887	0	82,887	58,545	24,342						2
	PUMPING EXPENSES	6,233										
601	Salaries and Wages	6,233	0	6,233	2,905	1,208	2,121					12
615	Purchased Power	0	0	0	0							1
616	Fuel for power production	0	0	0	0							1
620	Materials and Supplies	0	0	0	0	0	0					12
631	Contractual Serv.	0	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0	0					12
636	Contractual Serv. - Other	0	0	0	0	0	0					12
641	Rental of Property	0	0	0	0	0	0					12
	PUMPING EXPENSES	9,175										
642	Rental of Equipment	0	0	0	0	0	0					12
650	Transportation Expenses	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	9,175	0	9,175	4,276	1,778	3,121					12
	WATER TREATMENT EXPENSE	52,241										
601	Salaries and Wages	9,342	0	9,342	6,598	2,744						2
615	Purchased Power	0	0	0	0	0						2
616	Fuel for power production	0	0	0	0	0						2
618	Chemicals	42,899	0	42,899	42,899							1
620	Materials and Supplies	0	0	0	0	0						2

IAWC

Docket No. 02-0690

ICC Staff Exhibit No. 9.0

Schedule No. 9.1-S

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Revenue Requirement Allocation"

page 8 of 17

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	WATER TREATMENT EXPENSE	72,391										
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	0	0	0	0	0						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
675	Misc. Expenses	72,391	0	72,391	51,131	21,260						2
	TRANSMISSION/DISTRIBUTION	214,392										
601	Salaries and Wages	196,566	0	196,566	15,232	6,333	128,113	0	24,527	20,062	2,298	13
661	Storage Facilities	0	0	0			0					4
662	Mains	7,540	0	7,540	3,514	1,461	2,565					12
663	Meters	5,658	0	5,658					5,658			6
664	Services	4,628	0	4,628						4,628		7
615	Purchased Power	0	0	0	0							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION	82,026										
618	Chemicals	0	0	0	0							1
620	Materials and Supplies	0	0	0	0	0	0	0	0	0	0	13
672	Dist. reservoirs and standpipes	26,988	0	26,988			26,988					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	0	0	0	0							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property	0	0	0	0	0	0	0	0	0	0	13
677	Hydrants	530	0	530							530	8
642	Rental of Equipment	0	0	0	0	0	0	0	0	0	0	13
650	Transportation Exp.	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	54,508	0	54,508	4,224	1,756	35,526	0	6,801	5,563	637	13
	CUSTOMER ACCOUNTS EXPENSE	67,201										
601	Salaries and Wages	0	0	0				0				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	33,115	2,039	35,154	11,363	4,724	10,387	4,979	1,936	1,584	181	10
620	Materials and Supplies	34,086	0	34,086				34,086				5
	CUSTOMER ACCOUNTS EXPENSE	61,030										
631	Contractual Serv.	60,061	0	60,061				60,061				5
635	Contractual Serv. - Testing	0	0	0				0				5
636	Contractual Serv. - Other	969	0	969				969				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	0	0	0				0				5
650	Transportation Exp.	0	0	0				0				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	0	0	0				0				5

Act.	Utility	Staff	Net	Base	Extra Capacity		Customer Costs			Fire	Alloc.	
No.	Account	Cost	Adjust.	Cost	Cost	Max Day	Max Hour	Billing	Meter	Services	Service	Code
ADMINISTRATIVE AND GENERAL												
	870,225											
601	Salaries and Wages-employees	151,585	0	151,585	48,997	20,372	44,789	21,469	8,348	6,829	782	10
603	Salaries and Wages-officers	12,749	0	12,749	4,121	1,713	3,767	1,806	702	574	66	10
604	Pensions and benefits *	194,758	0	194,758	62,951	26,174	57,545	27,583	10,726	8,773	1,005	10
631-636	Outside services	110,239	0	110,239	35,632	14,815	32,572	15,613	6,071	4,966	569	10
615	Purchased Power	0	0	0	0	0	0	0	0	0	0	10
616	Fuel for Power Prod.	0	0	0	0	0	0	0	0	0	0	10
656-659	Insurance	68,340	0	68,340	22,089	9,184	20,192	9,679	3,764	3,079	353	10
641-642	Rents	37,590	0	37,590	12,150	5,052	11,107	5,324	2,070	1,693	194	10
650	Transportation Exp.	13,452	0	13,452	4,348	1,808	3,975	1,905	741	606	69	10
620	Materials and Supplies	28,225	0	28,225	9,123	3,793	8,340	3,997	1,554	1,271	146	10
660	Advertising	7,455	0	7,455	2,410	1,002	2,203	1,056	411	336	38	10
666-667	Regulatory Expense	3,115	0	3,115	1,007	419	920	441	172	140	16	10
675	Misc. Expenses	242,717	0	242,717	78,453	32,619	71,716	34,376	13,367	10,934	1,252	10
PRO FORMA ADJUSTMENTS												
	Labor *	0	(11,882)	(11,882)	(3,841)	(1,597)	(3,511)	(1,683)	(654)	(535)	(61)	10
	Fuel and Power	0	(3,660)	(3,660)	(3,660)							1
	Chemicals	0	0	0	0							1
	Waste Disposal	0	0	0	0	0						2
	Management Fees	0	(5,147)	(5,147)	(2,399)	(997)	(1,751)					12
	Group Insurance *	0	0	0	0	0	0	0	0	0	0	10
	Pensions *	0	0	0	0	0	0	0	0	0	0	10
	Regulatory Expenses	0	0	0	0	0	0	0	0	0	0	10
	Insurance other *	0	0	0	0	0	0	0	0	0	0	10
	Customer Accounting	0	0	0				0				5
	Rents	0	(1,018)	(1,018)	(329)	(137)	(301)	(144)	(56)	(46)	(5)	10
	General Office Exp	0	0	0	0	0	0	0	0	0	0	10
	Maint-other	0	309,707	309,707	100,106	41,622	91,509	43,863	17,057	13,952	1,598	10
	Miscellaneous	0	(959)	(959)	(310)	(129)	(283)	(136)	(53)	(43)	(5)	10
SUBTOTAL OPER. & MAIN.		1,805,789	289,080	2,094,869	830,149	250,695	551,610	265,244	103,143	84,367	9,662	
RECONCILIATION			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
TOTAL OPERATION & MAINTENANCE		1,805,789	289,080	2,094,869	830,149	250,695	551,610	265,244	103,143	84,367	9,662	
	Depreciation	504,830	124,205	629,035	269,908	112,223	75,397	0	72,564	69,691	29,252	Dep Sch
	Other Taxes	200,643	0	200,643	98,729	41,050	34,005	0	8,611	13,355	4,894	9
	Income Taxes	326,985	(45,417)	281,568	138,550	57,607	47,720	0	12,084	18,741	6,867	9
	Utility Operating Income	805,092	(30,809)	774,283	380,998	158,412	131,224	0	33,229	51,535	18,884	9
TOTAL REVENUES REQUIRED		3,643,339	337,059	3,980,398	1,718,334	619,987	839,956	265,244	229,631	237,688	69,559	
Less Special Tariff Revenues				0	0							
DIRECT CUSTOMER REVENUES				3,980,398	1,718,334	619,987	839,956	265,244	229,631	237,688	69,559	
Cross check =		3,980,398										
If available insert												
Labor Percentages (Code 11) from utility					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
will affect items followed by *												

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	7,165	3,339	1,388	2,438	
Small mains with overhead	46,837	21,827	9,075	15,935	
Total Expense less Adm. & General and less Pro Forma Adjustments		459,300	94,981	208,821	
% Small Mains to Total Expense		4.75%	9.55%	7.63%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		39,624	23,954	42,092	
Depreciation		56,572	23,934	37,961	
Other Taxes		20,694	8,755	17,121	
Income Taxes		29,040	12,286	24,026	Total
Utility Operating Income		79,857	33,784	66,069	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		225,787	102,712	187,268	515,766

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	Residential	Commercial	Industrial	Raw Water	Class 7	Class 8	Pub Auth	Sales for Resale	Total
Remove From	373,850	87,988	12,448	0	0	0	41,481	0	515,766
Reallocate to Blocks	353,147	100,115	17,149	0	0	0	45,356	0	515,766
Net Adjustment	(20,703)	12,127	4,701	0	0	0	3,875	0	0

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Customer Group Allocation Factors"

Customer Class	Annual Consumption				Max Day			Max Hour				Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	550,966	1.129	67.79%	225%	2.540	1.411	57.53%	300%	3.387	2.258	28.11%	71,277	89.95%	72,246	85.84%	71,505	90.14%
Commercial	156,195	0.320	19.22%	180%	0.576	0.256	10.44%	250%	0.800	0.480	5.98%	5,812	7.33%	9,454	11.23%	6,583	8.30%
Industrial	26,755	0.055	3.29%	150%	0.082	0.027	1.12%	200%	0.110	0.055	0.68%	312	0.39%	566	0.67%	368	0.46%
Raw Water	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Class 7	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Class 8	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
Pub. Authority	70,762	0.145	8.71%	200%	0.290	0.145	5.91%	250%	0.363	0.218	2.71%	604	0.76%	1,903	2.26%	871	1.10%
Sales for Resale	0	0.000	0.00%	261%	0.000	0.000	0.00%	275%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
SUBTOTAL	804,678	1.649	99.01%		3.489	1.840	74.99%		4.660	3.011	37.47%	78,005	98.44%	84,168	100.00%	79,328	100.00%
Fire Prot.	8,047	0.016	0.99%		0.630	0.614	25.01%		5.040	5.024	62.53%	1,236	1.56%	-----	-----	-----	-----
TOTAL	812,725	1.666	100.00%		4.119	2.453	100.00%		9.700	8.034	100.00%	79,241	100.00%	84,168	100.00%	79,328	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	RAW WATER	CLASS 7	CLASS 8	PUBLIC AUTHORITY	SALES FOR RESALE	FIRE PROTECTION	TOTAL
Base	67.79%	19.22%	3.29%	0.00%	0.00%	0.00%	8.71%	0.00%	0.99%	100.00%
Maximum Day	57.53%	10.44%	1.12%	0.00%	0.00%	0.00%	5.91%	0.00%	25.01%	100.00%
Maximum Hour	28.11%	5.98%	0.68%	0.00%	0.00%	0.00%	2.71%	0.00%	62.53%	100.00%
Commercial	89.95%	7.33%	0.39%	0.00%	0.00%	0.00%	0.76%	0.00%	1.56%	100.00%
Meters	85.84%	11.23%	0.67%	0.00%	0.00%	0.00%	2.26%	0.00%	-----	100.00%
Services	90.14%	8.30%	0.46%	0.00%	0.00%	0.00%	1.10%	0.00%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	RAW WATER	CLASS 7	CLASS 8	PUBLIC AUTHORITY	SALES FOR RESALE	FIRE PROTECTION	TOTAL
Base	1,164,900	330,241	56,568	0	0	0	149,611	0	17,013	1,718,333
Maximum Day	356,664	64,711	6,928	0	0	0	36,646	0	155,037	619,986
Maximum Hour	236,090	50,197	5,732	0	0	0	22,741	0	525,195	839,956
Commercial	238,586	19,455	1,044	0	0	0	2,022	0	4,137	265,244
Meters	197,105	25,792	1,544	0	0	0	5,191	0	-----	229,631
Services	214,250	19,726	1,104	0	0	0	2,608	0	-----	237,688
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	69,559	69,559
Adjustments *	(5,647)	(1,197)	(171)	0	0	0	(513)	0	(1,571)	(9,099)
Small Main Adjustment	(20,703)	12,127	4,701	0	0	0	3,875	0		0
TOTAL COST OF SERVICE	2,381,244	521,052	77,450	0	0	0	222,180	0	769,371	3,971,297
Percent of COSS	59.96%	13.12%	1.95%	0.00%	0.00%	0.00%	5.59%	0.00%	19.37%	100.00%

\* for Other and for Unbilled

Special Tariff Revenues	0
Other Operating Revenues	8,110
Unbilled Revenues	989
Total Revenues	3,980,397

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Public Fire Protection Surcharge"  
"Single - Tier Method"

Per Hydrant Cost	\$1,306.05				MONTHLY BILLS				Fire Prot	Equiv.	Monthly Rates				Actual	
Customer	Hydrants	Total Cost	Municipal Paid	Customer Surcharge	5/8"	3/4"	1"	1 1/2"	Bills	Fire Prot Bills	5/8"	3/4"	1"	1 1/2"	Surcharge Revenues Per Hydrant	Connections
Total	475	620,374	0	620,374	75,608	586	857	522	77,573	81,240					620,670	
Outside	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
City of Sterling	475	620,374	0	620,374	75,608	586	857	522	77,573	81,240	7.64	11.46	19.10	38.20	620,670	13.61
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Location	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
A	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
B	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
C	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
D	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
E	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
F	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
G	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
H	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
I	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
J	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
K	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
L	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
M	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
N	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
O	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
P	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Q	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
R	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
S	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
T	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
U	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
V	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
W	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
X	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Y	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Z	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
AA	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
BB	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
CC	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	

Total cost per fire protection customer based on number of Hydrants



Docket No. 02-0690

## Cost of Service Study

ICC Staff Exhibit No. 9.0

## "Fire Protection Allocation"

Schedule No. 9.1-S

FIRE PROTECTION	Equiv. Conn.
Public, monthly	5,700
Private, monthly	1,473
Total Equiv. Connections	7,173
Total Fire Protection per Cost of Service Study	769,371
Less Billing Costs	4,137
Less Hydrant Costs	69,559
Total Non-hydrant Fire Protection Costs	695,675
Total Non-hydrant Fire Protection Costs Per Equiv. Connection, monthly	96.98
Public Fire Protection Connection Costs	552,806
Plus Hydrant Costs	67,567
Total Public Fire Protection Costs	620,374
Total Private Fire Protection Connection Costs	142,869
Plus Billing Costs	4,137
Plus Hydrant Costs	1,991
Total Private Fire Protection Costs	148,998

## ILLINOIS COMMERCE COMMISSION

## Cost of Service Study

## "Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3"	0.056	8.74	9.00
3	0.162	19.01	19.00
4	0.344	36.73	37.00
6	1.000	100.33	100.00
8	2.131	210.02	210.00
10	3.832	375.02	375.00
12	6.190	603.70	604.00
16	13.192	1282.72	1283.00

# - ratio based on capacity

IAWC  
Docket No. 02-0690  
ICC Staff Exhibit No. 9.0  
Schedule No. 9.1-S

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Equiv. Meters and Services"

page 15 of 17

ITEM	METER RATIO	SERVICE RESIDENTAL RATIO	COMMERCIAL	INDUSTRIAL	RAW WATER	PUB AUTH	RESALE	CLASS 7	CLASS 8	TOTAL	
METER SIZE											
5/8" disk	1.0	1.0	70638	4597	161	0	0	0	284	0	75680
3/4" disk	1.5	1.1	263	275	60	0	0	0	36	0	634
1" disk	2.5	1.4	310	430	56	0	0	0	85	0	881
1 1/2" disk	5.0	1.8	30	293	35	0	0	0	108	0	466
2" disk	8.0	2.5	36	193	0	0	0	0	79	0	308
3" disk	15.0	3.0	0	24	0	0	0	0	12	0	36
4" disk	25.0	4.0	0	0	0	0	0	0	0	0	0
6" disk	50.0	5.0	0	0	0	0	0	0	0	0	0
8" disk	80.0	6.0	0	0	0	0	0	0	0	0	0
10" disk	115.0	6.5	0	0	0	0	0	0	0	0	0
12" disk	168.0	7.0	0	0	0	0	0	0	0	0	0
3" turbine	17.5	3.0	0	0	0	0	0	0	0	0	0
4" turbine	30.0	4.0	0	0	0	0	0	0	0	0	0
6" turbine	62.5	5.0	0	0	0	0	0	0	0	0	0
8" turbine	90.0	6.0	0	0	0	0	0	0	0	0	0
10" turbine	145.0	6.5	0	0	0	0	0	0	0	0	0
Parallel	0.0	0.0	0	0	0	0	0	0	0	0	0
Equiv Meters			72246	9454	566	0	0	0	1903	0	84168
Equiv Services			71505	6583	368	0	0	0	871	0	79328

Act. No.	Account	Utility Depreciation	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs Billing	Meter	Services	Fire Service	Alloc. Code
	INTANGIBLE PLANT	8,669										
301	Organization	4,150	0	4,150	4,150							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	4,519	0	4,519	4,519							1
	SOURCE OF SUPPLY PLANT	7,849										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	13
305	Collecting reservoirs	0	0	0	0							1
306	Intakes	0	0	0	0							2
307	Wells	7,608	0	7,608	5,374	2,234						2
308	Infiltration Galleries	0	0	0	0							2
309	Supply mains	241	0	241	170	71						2
339	Other plant	0	0	0	0							2
	PUMPING PLANT	38,938										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	5,780	0	5,780	2,694	1,120	1,966	0	0	0	0	13
310	Power Generation Equip.	3,147	0	3,147	1,467	610	1,071					12
310	Other power production	0	0	0	0	0	0					12
311	Hydraulic pumping	44	0	44	21	9	15					12
311	Electrical Pumping	29,478	0	29,478	13,737	5,712	10,029					12
311	Diesel Pumping	489	0	489	228	95	166					12
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	138,003										
302	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	72,830	0	72,830	51,442	21,388	0	0	0	0	0	13
320	Water treatment	65,173	0	65,173	46,033	19,140						2
339	Other Plant & Misc. Equip.	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	167,927										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	2,739	0	2,739	492	205	473	0	664	637	268	13
330	Dist. reservoirs and standpipes	6,883	0	6,883			6,883					4
331	Mains	63,705	0	63,705	29,688	12,344	21,673					12
333	Services	38,440	0	38,440						38,440		7
334	Meters	32,182	0	32,182					32,182			6
334	Meter installations	7,843	0	7,843					7,843			6
335	Hydrants	16,135	0	16,135							16,135	8
336	Backflow Prevention Devices	0	0	0						0		7
339	OtherPlant & Misc. Equip.	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	79,364										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	566	0	566	243	101	68	0	65	63	26	9
340	Office furniture	30,691	0	30,691	13,169	5,475	3,679	0	3,540	3,400	1,427	9
341	Transportation	27,738	0	27,738	11,902	4,949	3,325	0	3,200	3,073	1,290	9
342	Stores	17	0	17	7	3	2	0	2	2	1	9
343	Tools etc	8,198	0	8,198	3,518	1,463	983	0	946	908	381	9
344	Laboratory	853	0	853	366	152	102	0	98	95	40	9
345	Power operated	9,237	0	9,237	3,963	1,648	1,107	0	1,066	1,023	430	9
346	Communications	1,618	0	1,618	694	289	194	0	187	179	75	9
347	Miscellaneous	446	0	446	191	80	53	0	51	49	21	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	440,750	0	440,750	194,067	77,085	51,790	0	49,844	47,870	20,093	
	Allocation Code 9 Calculation	Cross check =		440,750	42.91%	17.84%	11.99%	0.00%	11.54%	11.08%	4.65%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
“Explanation of Allocation Codes”

- 1 This code refers to allocations made 100 percent to Base Cost. Base Costs are costs which tend to vary with the quantity of water used and do not contain elements necessary to meet variations in demand.
- 2 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum consumption on the Maximum Day. Extra Capacity costs are those costs associated with meeting rate of use requirements in excess of the average.
- 3 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum hourly consumption.
- 4 This code refers to allocations made 100 percent to Extra Capacity - Maximum Hour.
- 5 This code refers to allocations made 100 percent to commercial costs associated with serving customers irrespective to the amount of water used or the maximum demand. They include meter reading, billing, customer accounting and collection expenses.
- 6 This code refers to allocations made 100 percent to maintenance and capital charges on customer meters.
- 7 This code refers to allocations made 100 percent to maintenance and capital charges on customer services.
- 8 This code refers to allocations made 100 percent to Fire Protection - Hydrants.
- 9 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of plant in service as developed and shown on page 6 of 17 of this Schedule.
- 10 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of operating and maintenance expenses has been allocated before administrative and general expenses and without considering fuel, power and chemical costs.
- 11 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of labor costs if available or on the basis of Allocation Code 10 if not.
- 12 This code refers to allocations divided among Base Cost, Extra Capacity -Maximum Day and Extra Capacity - Maximum Hour.
- 13 This code refers to allocations divided among various cost functions in the same percentage ratio as the average of all items in that subgroup.

**ILLINOIS-AMERICAN WATER COMPANY DOCKET NO. 02-0690  
TYPICAL RESIDENTIAL BILL COMPARISON (5/8 INCH METER)**

**Champaign District**

	CURRENT	COMPANY PROPOSED	STAFF PROPOSED
Service Charge	\$7.60	\$9.14	\$7.60
Usage Charge (ccf)	\$1.5637	\$1.8796	\$1.9413
<b>(City Of Champaign)</b>			
Fire Surcharge	\$3.13	\$3.54	\$2.04

LINE NO.	USAGE 100'S CU. FT.	USAGE IN GALLONS	CURRENT MONTHLY BILL	COMPANY PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE	STAFF PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE
1	1	748	\$12.29	\$14.56	\$2.27	18.47%	\$11.58	-\$0.71	-5.8%
2	2	1,496	\$13.86	\$16.44	\$2.58	18.61%	\$13.52	-\$0.34	-2.5%
3	3	2,244	\$15.42	\$18.32	\$2.90	18.81%	\$15.46	\$0.04	0.3%
4	4	2,992	\$16.98	\$20.20	\$3.22	18.96%	\$17.41	\$0.43	2.5%
5	5	3,740	\$18.55	\$22.08	\$3.53	19.03%	\$19.35	\$0.80	4.3%
6	6	4,488	\$20.11	\$23.96	\$3.85	19.14%	\$21.29	\$1.18	5.9%
<b>7*</b>	<b>7</b>	<b>5,236</b>	<b>\$21.68</b>	<b>\$25.84</b>	<b>\$4.16</b>	<b>19.19%</b>	<b>\$23.23</b>	<b>\$1.55</b>	<b>7.1%</b>
8	8	5,984	\$23.24	\$27.72	\$4.48	19.28%	\$25.17	\$1.93	8.3%
9	9	6,732	\$24.80	\$29.60	\$4.80	19.35%	\$27.11	\$2.31	9.3%
10	10	7,480	\$26.37	\$31.48	\$5.11	19.38%	\$29.05	\$2.68	10.2%

**Notes:**

\* Typical monthly residential usage

**ILLINOIS-AMERICAN WATER COMPANY DOCKET NO. 02-0690**  
**TYPICAL RESIDENTIAL BILL COMPARISON (5/8 INCH METER)**

**LINCOLN DISTRICT**

	CURRENT	COMPANY PROPOSED	STAFF PROPOSED
Facilities Charge	\$5.49	\$6.22	\$8.00
Usage Charge (ccf)	\$2.4200	\$2.7404	\$2.81
<b>(City Of Lincoln)</b>			
Fire Surcharge	\$3.13	\$3.54	\$2.82

LINE NO.	USAGE 100'S CU. FT.	USAGE IN GALLONS	CURRENT MONTHLY BILL	COMPANY PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE	STAFF PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE
1	1	748	\$11.04	\$12.50	\$1.46	13.22%	\$13.63	\$2.59	23.5%
2	2	1,496	\$13.46	\$15.24	\$1.78	13.22%	\$16.43	\$2.97	22.1%
3	3	2,244	\$15.88	\$17.98	\$2.10	13.22%	\$19.24	\$3.36	21.2%
4	4	2,992	\$18.30	\$20.72	\$2.42	13.22%	\$22.05	\$3.75	20.5%
5	5	3,740	\$20.72	\$23.46	\$2.74	13.22%	\$24.85	\$4.13	19.9%
6	6	4,488	\$23.14	\$26.20	\$3.06	13.22%	\$27.66	\$4.52	19.5%
7*	7	5,236	\$25.56	\$28.94	\$3.38	13.22%	\$30.47	\$4.91	19.2%
8	8	5,984	\$27.98	\$31.68	\$3.70	13.22%	\$33.27	\$5.29	18.9%
9	9	6,732	\$30.40	\$34.42	\$4.02	13.22%	\$36.08	\$5.68	18.7%
10	10	7,480	\$32.82	\$37.16	\$4.34	13.22%	\$38.89	\$6.07	18.5%

**Notes:**

\* Typical monthly residential usage

**ILLINOIS-AMERICAN WATER COMPANY DOCKET NO. 02-0690  
TYPICAL RESIDENTIAL BILL COMPARISON (5/8 INCH METER)**

**STERLING DISTRICT**

	CURRENT	COMPANY PROPOSED	STAFF PROPOSED
Facilities charge	\$9.89	\$14.96	\$10.75
Usage Charge (ccf) (City of Sterling)	\$1.6300	\$2.4654	\$2.59
Fire Surcharge	\$3.61	\$5.46	\$7.64

LINE NO.	USAGE 100'S CU. FT.	USAGE IN GALLONS	CURRENT MONTHLY BILL	COMPANY PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE	STAFF PROPOSED MONTHLY BILL	DOLLAR INCREASE	PERCENT INCREASE
1	1	748	\$15.13	\$22.89	\$7.76	51.29%	\$20.98	\$5.85	38.7%
2	2	1,496	\$16.76	\$25.35	\$8.59	51.25%	\$23.57	\$6.81	40.6%
3	3	2,244	\$18.39	\$27.82	\$9.43	51.28%	\$26.16	\$7.77	42.3%
4	4	2,992	\$20.02	\$30.28	\$10.26	51.25%	\$28.75	\$8.73	43.6%
5	5	3,740	\$21.65	\$32.75	\$11.10	51.27%	\$31.34	\$9.69	44.8%
6	6	4,488	\$23.28	\$35.21	\$11.93	51.25%	\$33.93	\$10.65	45.7%
7*	7	5,236	\$24.91	\$37.68	\$12.77	51.26%	\$36.52	\$11.61	46.6%
8	8	5,984	\$26.54	\$40.14	\$13.60	51.24%	\$39.11	\$12.57	47.4%
9	9	6,732	\$28.17	\$42.61	\$14.44	51.26%	\$41.70	\$13.53	48.0%
10	10	7,480	\$29.80	\$45.07	\$15.27	51.24%	\$44.29	\$14.49	48.6%

**Notes:**

\* Typical monthly residential usage